

Qy 132 CATCACTTGTCTGGGCGAGTCAGGATATTAGCAGCTGGTTAGCCTGGTATCAGCATAAAACC 191
 |||
 Db 138 CATCACTTGTCTGGGCGAGTCAGGGTATTAGCAGCTGGTTAGCCTGGTATCAGCAGAAACC 197
 Qy 192 AGGTAAAGCACCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGTGGTGTCCCATC 251
 |||
 Db 198 AGGGAAAGCCCCTAAGCTCCTGATCTATGATGCATCCAGTTTGCAAAGTGGGGTCCCATC 257
 Qy 252 AAGGTTTCAGCGGAAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTGCAGCC 311
 |||
 Db 258 AAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTGCAGCC 317
 Qy 312 TGAAGATTTTGCAACTTACTATTGTCAACAGGCTAATAGTTTCCCGTACACTTTTGGTCA 371
 |||
 Db 318 TGAAGATTTTGCAACTTACTATTGTCAACAGGCTAACAGTTTCCCTCTCACTTTTCGGCGG 377
 Qy 372 GGGAACCAAGCTGGAGATCAAACGAACTGTGGCTGCACCATCTGTCTTC 420
 |||
 Db 378 AGGGACCAAGGTGGAGATCAAACGAACTGTGGCTGCACCATCTGTCTTC 426

RESULT 8

BC073764

LOCUS BC073764 936 bp mRNA linear PRI 30-JUN-2004

DEFINITION Homo sapiens cDNA clone MGC:88771 IMAGE:4576136, complete cds.

ACCESSION BC073764

VERSION BC073764.1 GI:49256424

KEYWORDS MGC.

SOURCE Homo sapiens (human)

ORGANISM Homo sapiens

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1 (bases 1 to 936)

AUTHORS Strausberg,R.L., Feingold,E.A., Grouse,L.H., Derge,J.G.,
 Klausner,R.D., Collins,F.S., Wagner,L., Shenmen,C.M., Schuler,G.D.,
 Altschul,S.F., Zeeberg,B., Buetow,K.H., Schaefer,C.F., Bhat,N.K.,
 Hopkins,R.F., Jordan,H., Moore,T., Max,S.I., Wang,J., Hsieh,F.,
 Diatchenko,L., Marusina,K., Farmer,A.A., Rubin,G.M., Hong,L.,
 Stapleton,M., Soares,M.B., Bonaldo,M.F., Casavant,T.L.,
 Scheetz,T.E., Brownstein,M.J., Usdin,T.B., Toshiyuki,S.,
 Carninci,P., Prange,C., Raha,S.S., Loquellano,N.A., Peters,G.J.,
 Abramson,R.D., Mullahy,S.J., Bosak,S.A., McEwan,P.J.,
 McKernan,K.J., Malek,J.A., Gunaratne,P.H., Richards,S.,
 Worley,K.C., Hale,S., Garcia,A.M., Gay,L.J., Hulyk,S.W.,
 Villalon,D.K., Muzny,D.M., Sodergren,E.J., Lu,X., Gibbs,R.A.,
 Fahey,J., Helton,E., Kettelman,M., Madan,A., Rodrigues,S.,
 Sanchez,A., Whiting,M., Madan,A., Young,A.C., Shevchenko,Y.,
 Bouffard,G.G., Blakesley,R.W., Touchman,J.W., Green,E.D.,
 Dickson,M.C., Rodriguez,A.C., Grimwood,J., Schmutz,J., Myers,R.M.,
 Butterfield,Y.S., Krzywinski,M.I., Skalska,U., Smailus,D.E.,
 Schnerch,A., Schein,J.E., Jones,S.J. and Marra,M.A.

TITLE Generation and initial analysis of more than 15,000 full-length
 human and mouse cDNA sequences

JOURNAL Proc. Natl. Acad. Sci. U.S.A. 99 (26), 16899-16903 (2002)

PUBMED 12477932

REFERENCE 2 (bases 1 to 936)

AUTHORS Strausberg,R.

TITLE	Direct Submission
JOURNAL	Submitted (23-JUN-2004) National Institutes of Health, Mammalian Gene Collection (MGC), Cancer Genomics Office, National Cancer Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590, USA
REMARK	NIH-MGC Project URL: http://mgc.nci.nih.gov
COMMENT	Contact: MGC help desk Email: cgapbs-r@mail.nih.gov Tissue Procurement: Louis Staudt cDNA Library Preparation: Rubin Laboratory cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL) DNA Sequencing by: Sequencing Group at the Stanford Human Genome Center, Stanford University School of Medicine, Stanford, CA 94305 Web site: http://www-shgc.stanford.edu Contact: (Dickson, Mark) mcd@paxil.stanford.edu Dickson, M., Schmutz, J., Grimwood, J., Rodriguez, A., and Myers, R. M.

Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at: <http://image.llnl.gov>
Series: IRAL Plate: 58 Row: c Column: 10
This clone was selected for full length sequencing because it passed the following selection criteria: GenomeScan gene prediction, Similarity but not identity to protein.

```

FEATURES             Location/Qualifiers
     source            1. .936
                        /organism="Homo sapiens"
                        /mol_type="mRNA"
                        /db_xref="taxon:9606"
                        /clone="MGC:88771 IMAGE:4576136"
                        /tissue_type="Primary B-Cells from Tonsils"
                        /clone_lib="NIH_MGC_48"
                        /lab_host="DH10B-R"
                        /note="Vector: pOTB7"
     CDS               12. .722
                        /codon_start=1
                        /product="Unknown (protein for MGC:88771)"
                        /protein_id="AAH73764.1"
                        /db_xref="GI:49256425"
                        /translation="MDMRVPAQLLGLLLLWFPGSRCDIQMTQSPSSVSASVGDRVITIT
CRASQGISSWLAWYQQKPGKAPKLLIYAASSLQSGVPSRFRSGSGSGTDFTLTISLQP
EDFATYYCQQAHSFPFTFGPGTKVDIKRTVAAPSVFIFPPSDEQLKSGTASVVCLLNN
FYPREAKVQWKVDNALQSGNSQESVTEQDSKDSSTYLSSTLTLSKADYEKHKVYACEV
THOGLSSPVTKSFNRGEC"

```

ORIGIN

Query Match 89.0%; Score 373.8; DB 9; Length 936;
Best Local Similarity 94.6%; Pred. No. 1.1e-113;
Matches 387; Conservative 0; Mismatches 22; Indels 0; Gaps 0;

Qy 12 CATGATGGTCCCAGCTCAGCTCCTCGGTCTCCTGCTGCTCTGGTTCCCAGGTTCCAGATG 71
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
Db 17 CATGAGGGTCCCCGCTCAGCTCCTGGGGCTCCTGCTGCTCTGGTTCCCAGGTTCCAGATG 76

Qy 72 CGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGAGTCAC 131
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
Db 77 CGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGAGTCAC 136

Qy 132 CATCACTTGTCTGGGCGAGTCAGGATATTAGCAGCTGGTTAGCCTGGTATCAGCATAAAACC 191
 |||
 Db 137 CATCACTTGTCTGGGCGAGTCAGGGTATTAGCAGCTGGTTAGCCTGGTATCAGCAGAAACC 196
 Qy 192 AGGTAAAGCACCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGTGGTGTCCCATC 251
 |||
 Db 197 AGGGAAAGCCCCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGTGGGGTCCCATC 256
 Qy 252 AAGGTTTCAGCGGAAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTGCAGCC 311
 |||
 Db 257 AAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTGCAGCC 316
 Qy 312 TGAAGATTTTGCAACTTACTATTGTCAACAGGCTAATAGTTTCCCGTACACTTTTGGTCA 371
 |||
 Db 317 TGAAGATTTTGCAACTTACTATTGTCAACAGGCTCACAGTTTCCCATTCACCTTCGGCCC 376
 Qy 372 GGGAACCAAGCTGGAGATCAAACGAAGTGTGGCTGCACCATCTGTCTTC 420
 |||
 Db 377 TGGGACCAAAGTGGATATCAAACGAAGTGTGGCTGCACCATCTGTCTTC 425

RESULT 9

AX305000

LOCUS AX305000 974 bp DNA linear PAT 11-DEC-2001

DEFINITION Sequence 29 from Patent EP1158004.

ACCESSION AX305000

VERSION AX305000.1 GI:17644678

KEYWORDS

SOURCE Homo sapiens (human)

ORGANISM Homo sapiens

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1

AUTHORS Takashi,T., Katsunari,T.P. and Nobuaki,H.

TITLE Human monoclonal antibody against a costimulatory signal
 transduction molecule ailim and pharmaceutical use thereof

JOURNAL Patent: EP 1158004-A 29 28-NOV-2001;
 Japan Tobacco Inc. (JP)

FEATURES

source Location/Qualifiers

1. .974

/organism="Homo sapiens"

/mol_type="unassigned DNA"

/db_xref="taxon:9606"

5'UTR 1. .38

CDS 39. .749

/note="unnamed protein product"

/codon_start=1

/protein_id="CAD19026.1"

/db_xref="GI:17644679"

/translation="MDMRVPAQLLGLLLWFPGRCDIQMTQSPSSVSASVGDRTIT
 CRASQGISRLAWYQQKPGKAPKLLIYVASSLQSGVPSRFSGSGSGTDFTLTISLQ
 EDFATYYCQQANSFPWTFGQGTKVEIKRTVAAPSVFIFPPSDEQLKSGTASVVCLLN
 FYPREAKVQWKVDNALQSGNSQESVTEQDSKSTYLSSTLTLSKADYEEKHKVYACEV
 THQGLSSPVTKSFNRGEC"

sig_peptide 39. .104

3'UTR 750. .974

ORIGIN

Query Match 88.2%; Score 370.6; DB 6; Length 974;
 Best Local Similarity 94.1%; Pred. No. 1.3e-112;
 Matches 385; Conservative 0; Mismatches 24; Indels 0; Gaps 0;

```

Qy      12 CATGATGGTCCCAGCTCAGCTCCTCGGTCTCCTGCTGCTCTGGTTCCCAGGTTCCAGATG 71
        ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db      44 CATGAGGGTCCCCGCTCAGCTCCTGGGGCTCCTGCTGCTCTGGTTCCCAGGTTCCAGATG 103

Qy      72 CGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGAGTCAC 131
        ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db     104 CGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGAGTCAC 163

Qy     132 CATCACTTGTCTGGGCGAGTCAGGATATTAGCAGCTGGTTAGCCTGGTATCAGCATAAACC 191
        ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db     164 CATCACTTGTCTGGGCGAGTCAGGATATTAGCAGGTTGTTAGCCTGGTATCAGCAGAAACC 223

Qy     192 AGGTAAAGCACCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGTGGTGTCCCATC 251
        ||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db     224 AGGGAAAGCCCTAAACTCCTGATCTATGTTGCATCCAGTTTGCAAAGTGGGGTCCCATC 283

Qy     252 AAGGTTTCAGCGGAAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTGCAGCC 311
        ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db     284 AAGGTTTCAGCGGAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTGCAGCC 343

Qy     312 TGAAGATTTTGCAACTTACTATTGTCAACAGGCTAATAGTTTCCCGTACACTTTTGGTCA 371
        ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db     344 TGAAGATTTTGCAACTTACTATTGTCAACAGGCTAACAGTTTCCCGTGGACGTTTCGGCCA 403

Qy     372 GGGAAACCAAGCTGGAGATCAAACGAACTGTGGCTGCACCATCTGTCTTC 420
        || ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db     404 AGGGACCAAGGTGGAAATCAAACGAACTGTGGCTGCACCATCTGTCTTC 452
  
```

RESULT 10

AX306529
 LOCUS AX306529 974 bp DNA linear PAT 11-DEC-2001
 DEFINITION Sequence 29 from Patent WO0187981.
 ACCESSION AX306529
 VERSION AX306529.1 GI:17645749
 KEYWORDS .
 SOURCE Homo sapiens (human)
 ORGANISM Homo sapiens
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
 REFERENCE 1
 AUTHORS Tsuji,T., Tezuka,K. and Hori,N.
 TITLE Human monoclonal antibody against a costimulatory signal
 transduction molecule ailim and pharmaceutical use thereof
 JOURNAL Patent: WO 0187981-A 29 22-NOV-2001;
 Japan Tobacco Inc. (JP)
 FEATURES Location/Qualifiers
 source 1. .974
 /organism="Homo sapiens"
 /mol_type="unassigned DNA"
 /db_xref="taxon:9606"

Db 284 AAGGTT CAGCGG CAGTGG ATCTGG GACAGAT TTTACT CTCACC ATCAGC AGCCTG CAGCC 343
 Qy 312 TGAAGAT TTTGCA ACTTAC TATTGT CAACAG GCTAAT AGTTT CCCGTAC ACTTTT GGTCA 371
 Db 344 TGAAGAT TTTGCA ACTTAC TATTGT CAACAG GCTAAC AGTTT CCCGTG GACGTT CGGCCA 403
 Qy 372 GGGAAAC CAAGCTG GAGATCA AACGAA CTGTGG CTGCAC CATCTG TCCTTC 420
 Db 404 AGGGAC CAAGGTG GAAATCA AACGAA CTGTGG CTGCAC CATCTG TCCTTC 452

RESULT 12

S59162

LOCUS S59162 433 bp mRNA linear PRI 26-JUN-2000

DEFINITION. Ig V kappa =anti-single/double-stranded DNA antibody NE-13 light chain variable region [human, B-cells, mRNA Partial, 433 nt].

ACCESSION S59162

VERSION S59162.1 GI:299955

KEYWORDS

SOURCE Homo sapiens (human)

ORGANISM Homo sapiens

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1 (bases 1 to 433)

AUTHORS Hirabayashi, Y., Munakata, Y., Takai, O., Shibata, S., Sasaki, T. and Sano, H.

TITLE Human B-cell clones expressing lupus nephritis-associated anti-DNA
idiotypes are preferentially expanded without somatic mutation

JOURNAL Scand. J. Immunol. 37 (5), 533-540 (1993)

MEDLINE 93248539

PUBMED 8387226

REMARK GenBank staff at the National Library of Medicine created this entry [NCBI gibbsq 130630] from the original journal article. This sequence comes from Fig. 6.

FEATURES	Location/Qualifiers
----------	---------------------

```
source      1. .433
            /organism="Homo sapiens"
            /mol_type="mRNA"
            /db_xref="taxon:9606"
            /cell_type="B cells"
```

```
gene      1.  .>433
          /gene="Iq_Vkappa"
```

```
CDS      1. .>433
          /gene="Ig Vkappa"
          /note="mismatches(74[Y->T],122[N->D]); conceptual
          translation presented here differs from translation in
          publication"
          /codon_start=1
          /product="anti-single/double-stranded DNA antibody NE-13
          light chain variable region"
          /protein_id="AAB26430.2"
          /db_xref="GI:8176528"
          /translation="MDMGVLVQLLGLLLWFPGSRCDIQMTQSPSSVSASVGDRVITIT
          CRASQGISSWLAWYQQKPGKAPKLLIYAASSLQSGVPSRFRSGSGSGTDFTLTISLQP
          EDFATYYCOOANSFPYPFGGGTKVEIKRTVAAPSVFIFPPSD"
```

ORIGIN

Query Match 87.9%; Score 369; DB 9; Length 433;
 Best Local Similarity 93.9%; Pred. No. 4.4e-112;
 Matches 384; Conservative 0; Mismatches 25; Indels 0; Gaps 0;

```

Qy      12 CATGATGGTCCCAGCTCAGCTCCTCGGTCTCCTGCTGCTCTGGTCCCAGGTTCCAGATG 71
      ||||| ||||| || ||||| || || ||||| ||||| ||||| ||||| |||||
Db      6 CATGGGAGTCCTAGTTCAGCTTCTGGGGCTCCTGCTGCTCTGGTCCCAGGTTCCAGATG 65

Qy     72 CGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGAGTCAC 131
      ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db     66 CGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGAGTCAC 125

Qy    132 CATCACTTGTCGGGCGAGTCAGGATATTAGCAGCTGGTTAGCCTGGTATCAGCATAAACC 191
      ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db    126 CATCACTTGTCGGGCGAGTCAGGGTATTAGCAGCTGGTTAGCCTGGTATCAGCAGAAACC 185

Qy    192 AGGTAAAGCACCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGTGGTGTCCCATC 251
      ||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db    186 AGGGAAAGCCCCCTAAGCTCCTGATCTACGCTGCATCCAGTTTGCAAAGTGGGGTCCCATC 245

Qy    252 AAGGTTTCAGCGGAAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTGCAGCC 311
      ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db    246 AAGGTTTCAGCGGAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTGCAGCC 305

Qy    312 TGAAGATTTTGCAACTTACTATTGTCAACAGGCTAATAGTTTCCCGTACACTTTTGGTCA 371
      ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db    306 TGAAGATTTTGCAACTTACTATTGTCAACAGGCTAACAGTTTCCCTTACCCTTTCGGCGG 365

Qy    372 GGGAAACCAAGCTGGAGATCAAACGAAGTGTGGCTGCACCATCTGTCTTC 420
      || ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db    366 AGGGACCAAGGTGGAGATCAAACGAAGTGTGGCTGCACCATCTGTCTTC 414
  
```

RESULT 13

AR161375

LOCUS AR161375 388 bp DNA linear PAT 17-OCT-2001

DEFINITION Sequence 358 from patent US 6255458.

ACCESSION AR161375

VERSION AR161375.1 GI:16227235

KEYWORDS

SOURCE Unknown.

ORGANISM Unknown.

Unclassified.

REFERENCE 1 (bases 1 to 388)

AUTHORS Lonberg,N. and Kay,R.M.

TITLE High affinity human antibodies and human antibodies against digoxin

JOURNAL Patent: US 6255458-A 358 03-JUL-2001;

FEATURES Location/Qualifiers

source 1..388

/organism="unknown"

/mol_type="unassigned DNA"

ORIGIN

Query Match 87.8%; Score 368.6; DB 6; Length 388;
 Best Local Similarity 97.7%; Pred. No. 5.9e-112;
 Matches 374; Conservative 0; Mismatches 9; Indels 0; Gaps 0;

Qy 72 CGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGAGTCAC 131
 |||
 Db 66 CGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGAGTCAC 125

Qy 132 CATCACTTGTCTGGGCGAGTCAGGATATTAGCAGCTGGTTAGCCTGGTATCAGCATAAACC 191
 |||
 Db 126 CATCACTTGTCTGGGCGAGTCAGGATATTAGCAGCTGGTTAGCCTGGTATCAGCATAAACC 185

Qy 192 AGGTAAAGCACCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGTGGTGTCCCATC 251
 |||
 Db 186 AGGGAAAGCCCCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGTGGGGTCCCATC 245

Qy 252 AAGGTTTCAGCGGAAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTGCAGCC 311
 |||
 Db 246 AAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTGCAGCC 305

Qy 312 TGAAGATTTTGCAACTTACTATTGTCAACAGGCTAATAGTTTCCCGTACACTTTTGGTCA 371
 |||
 Db 306 TGAAGATTTTGCAACTTACTATTGTCAACAGGCTAATAGTTTCCCGTACACTTTTGGCCA 365

Qy 372 GGGAACCAAGCTGGAGATCAAAC 394
 |||
 Db 366 GGGGACCAAGCTGGAGATCAAAC 388

RESULT 15

BD096602

LOCUS BD096602 388 bp DNA linear PAT 27-AUG-2002

DEFINITION Transgenic non-human animals capable of producing heterologous antibodies.

ACCESSION BD096602

VERSION BD096602.1 GI:22642190

KEYWORDS JP 2001527386-A/129.

SOURCE unidentified

ORGANISM unidentified
 unclassified.

REFERENCE 1 (bases 1 to 388)

AUTHORS Lonberg,N. and Kay,R.M.

TITLE Transgenic non-human animals capable of producing heterologous antibodies

JOURNAL Patent: JP 2001527386-A 129 25-DEC-2001;
 GENPHARM INTERNATIONAL

COMMENT OS Unidentified

PN JP 2001527386-A/129

PD 25-DEC-2001

PF 01-DEC-1997 JP 1998525687

PR 02-DEC-1996 US 08/758417

PI NILS LONBERG,ROBERT M KAY

PC C12N5/00,C12N5/28,C12N5/24,C12N5/10,C07K16/00,A61K39/00 CC

Strandedness: Single;

CC Topology: Linear;

CC Transgenic non-human animals capable of
 producing heterologous

CC antibodies

FH Key Location/Qualifiers

FT source 1. 388

Scoring table: IDENTITY_NUC
Gapop 10.0 , Gapext 1.0

Searched: 4134886 seqs, 2624710521 residues

Total number of hits satisfying chosen parameters: 8269772

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : N_Geneseq_23Sep04:*
1: geneseqn1980s:*
2: geneseqn1990s:*
3: geneseqn2000s:*
4: geneseqn2001as:*
5: geneseqn2001bs:*
6: geneseqn2002as:*
7: geneseqn2002bs:*
8: geneseqn2003as:*
9: geneseqn2003bs:*
10: geneseqn2003cs:*
11: geneseqn2003ds:*
12: geneseqn2004s:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result		%					
No.	Score	Query Match	Length	DB	ID	Description	
1	420	100.0	420	2	AAT73445	Aat73445 Human imm	
2	420	100.0	420	2	AAV39293	Aav39293 Synthetic	
3	420	100.0	420	2	AAZ22047	Aaz22047 Nucleotid	
4	420	100.0	3819	2	AAT78825	Aat78825 Kappa lig	
5	420	100.0	3819	2	AAV39266	Aav39266 Plasmid p	
6	420	100.0	3819	2	AAZ22020	Aaz22020 Nucleotid	
7	370.6	88.2	974	6	AAS99473	Aas99473 Anti-huma	
8	368.6	87.8	388	2	AAT73441	Aat73441 Human imm	
9	368.6	87.8	388	2	AAV39239	Aav39239 Functiona	
10	368.6	87.8	388	2	AAZ21993	Aaz21993 Partial n	
11	365.8	87.1	728	8	ABT31882	Abt31882 Anti-CD40	
12	365.6	87.0	711	11	ADM47072	Adm47072 Mouse ant	
13	361.6	86.1	705	10	ADE28412	Ade28412 Human ant	
14	361.6	86.1	705	10	ADE28428	Ade28428 Human ant	
15	357.8	85.2	439	2	AAT73443	Aat73443 Human imm	
16	356.2	84.8	439	2	AAZ21995	Aaz21995 Partial n	
17	352.8	84.0	409	2	AAV39241	Aav39241 Functiona	
18	346.8	82.6	401	12	ADH56388	Adh56388 Variable	
19	346.4	82.5	463	8	AAD56221	Aad56221 Human AB-	

20	346.4	82.5	6082	8	AAD56212	Aad56212 Human AB-
21	340.2	81.0	711	12	ADM32966	Adm32966 Nucleotid
22	338.6	80.6	1106	6	ABQ54241	Abq54241 Human ova
23	338.4	80.6	463	8	AAD56219	Aad56219 Human AB-
24	338.4	80.6	6082	8	AAD56211	Aad56211 Human AB-
25	337	80.2	438	4	AAH41157	Aah41157 Human cod
26	335.2	79.8	729	3	AAA11630	Aaa11630 Human imm
27	335.2	79.8	729	6	ABL46009	Abl46009 Humanised
28	333.8	79.5	981	12	ADP07904	Adp07904 Human imm
29	332.2	79.1	714	3	AAA46899	Aaa46899 DNA encod
30	332.2	79.1	714	10	AAD54350	Aad54350 Human 11.
31	330.6	78.7	490	9	ACH50647	Ach50647 Human mam
32	330.6	78.7	1066	2	AAQ49943	Aaq49943 Human ant
33	329	78.3	817	3	AAA27389	Aaa27389 Human IGF
34	326.6	77.8	591	6	ABQ56277	Abq56277 Human ova
35	325.8	77.6	871	8	ACC46532	Acc46532 Human dit
36	325.8	77.6	944	4	AAF44892	Aaf44892 Human bre
37	325.8	77.6	19035	2	AAV61794	Aav61794 Traget pl
38	324.2	77.2	698	8	ABT31880	Abt31880 Anti-CD40
39	323.2	77.0	384	2	AAT46133	Aat46133 Monoclona
40	323.2	77.0	384	2	AAT85844	Aat85844 Monoclona
41	323.2	77.0	384	10	AAL56203	Aal56203 Human C40
42	323.2	77.0	384	12	ADQ20176	Adq20176 Human sof
43	322.6	76.8	1526	12	ADN97514	Adn97514 Artificia
44	322.4	76.8	463	8	AAD56217	Aad56217 Human AB-
45	322.4	76.8	6082	8	AAD56210	Aad56210 Human AB-

ALIGNMENTS

RESULT 1

AAT73445

ID AAT73445 standard; DNA; 420 BP.

XX

AC AAT73445;

XX

DT 03-DEC-1997 (first entry)

XX

DE Human immunoglobulin light chain variable region partial transcript.

XX

KW Ig; affinity constant; human; antigen; hybridoma; B cell; transgene;

KW transgenic; mouse; CD4; antibody; autoimmune; inflammatory;

KW transplant rejection; ss.

XX

OS Homo sapiens.

XX

PN WO9713852-A1.

XX

PD 17-APR-1997.

XX

PF 10-OCT-1996; 96WO-US016433.

XX

PR 10-OCT-1995; 95US-00544404.

XX

PA (GENP-) GENPHARM INT INC.

XX

XX

DR

XX

DT

XX

DE

XX

CC

cc
gg

CC

CC

CC

CC

CC

cc
ccCC
aa

cc

CC

CC

CC

CC

cc
aa

CC

CC

one or more subsequent heterologous isotypes

Sequence 420 BP; 98 A; 116 C; 98 G; 108 T; 0 U; 0 Other;

Query Match 100.0%; Score 420; DB 2; Length 420;
Best Local Similarity 100.0%; Pred. No. 6.4e-122;
Matches 420; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 AAGCTTGCCACCATGATGGTCCCAGCTCAGCTCCTCGGTCTCCTGCTGCTCTGGTTCCCA 60
|||||
Db 1 AAGCTTGCCACCATGATGGTCCCAGCTCAGCTCCTCGGTCTCCTGCTGCTCTGGTTCCCA 60

Db 1 AAGCTTGCCACCATGATGGTCCCAGCTCAGCTCCTCGGTCTCCTGCTGCTCTGGTTCCCA 60

Qy 61 GGTTCAGATGCGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGA 120
| | | | | | | | | | | | | | | | | | | | | | | | | | | |

Db 61 GGTTCCAGATGCGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGA 120

Qy 121 GACAGAGTCACCATCACTTGTCTGGGCGAGTCAGGATATTAGCAGCTGGTTAGCCTGGTAT 180

Db 121 GACAGAGTCACCATCACTTGTCGGGCGAGTCAGGATATTAGCAGCTGGTTAGCCTGGTAT 180

Qy 181 CAGCATAAACCAGGTAAAGCACCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGT 240

Db 181 CAGCATAAACCAGGTAAAGCACCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGT 240

Qy 241 GGTGTCCCATCAAGGTTACAGCGGAAGTGGATCTGGGACAGATTTCACTCTCACCATCAGC 300

Db 241 GGTGTCCCATCAAGGTTTCAGCGGAAGTGGATCTGGGACAGATTTCCTCTCACCATCAGC 300

Qy 301 AGCCTGCAGCCTGAAGATTTTGCAACTTACTATTGTCAACAGGCTAATAGTTTCCCGTAC 360

Db 301 AGCCTGCAGCCTGAAGATTTTGCAACTTACTATTGTCAACAGGCTAATAGTTTCCCGTAC 360

Qy 361 ACTTTTGGTCAGGGAACCAAGCTGGAGATCAAACGAAGTGTGGCTGCACCATCTGTCTTC 420

Db 361 ACTTTTGGTCAGGGAACCAAGCTGGAGATCAAACGAAGTGTGGCTGCACCATCTGTCTTC 420

RESULT 2

AAV39293

ID AAV39293 standard; DNA; 420 BP.

XX

AC AAV39293;

XX

DT 18-DEC-1998 (first entry)

XX

DE Synthetic kappa light chain sequence LC6G5.

XX

KW Transgenic animal; human heterologous antibody; transgene;

KW isotype switching; neutrophil efflux; reperfusion injury; CD4 binding;

KW autoimmune reaction; inflammatory response; transplant rejection;

KW acid induced lung injury; acute adult respiratory distress syndrome;

KW ARDS; vasculitis; septic shock; allergic reaction; asthma;

KW cystic fibrosis; ss.

XX

OS Synthetic.

OS Homo sapiens.

XX

PN WO9824884-A1.

XX

PD 11-JUN-1998.

XX

PF 01-DEC-1997; 97WO-US021803.

XX

PR 02-DEC-1996; 96US-00758417.

XX

PA (GENP-) GENPHARM INT.

XX

PI Lonberg N, Kay RM;

XX

DR WPI; 1998-333306/29.

XX

PT Hybridoma producing antibody specific for interleukin-8 - used to prevent

PT efflux of neutrophils from vasculature, and treat reperfusion injury.

XX

PS Example 42; Page 324-325; 452pp; English.

XX

CC The present sequence represents a synthetic kappa light sequence (created

CC using oligonucleotides AAV39267-78). This synthetic sequence differs from

CC natural sequences in that strings of repeated oligonucleotides are

CC interrupted (to facilitate oligonucleotide synthesis and PCR

CC amplification), optimal translation initiation sites are incorporated and

CC HindII sites were engineered upstream of the translation initiation

CC sites. The sequence is used to make plasmid pHC6G5, which is used in the

CC construction of minigenes for expression of IgGkappa anti-CD4 antibodies,

CC in the transgenic mouse of the invention. The specification describes

CC transgenic non-human animals, especially a mouse, which are capable of

CC producing a human heterologous antibodies of multiple isotypes by

CC undergoing isotype switching. The transgenic animals have human heavy and

CC light chain transgenes. The transgenes are capable of functionally

CC rearranging a heterologous diversity (D) gene in a variable-diversity-

CC junction (V-D-J) recombination. The transgenes include a heavy chain

CC transgene comprising at least one V, D and J gene segment, and one

CC constant region gene segment. The immunoglobulin (Ig) light chain
CC transgene comprises at least one V and J gene segment and one constant
CC region gene segment. The gene segments are heterologous to the transgenic
CC animal. The antibody can be used to prevent efflux of neutrophils from
CC vasculature. It can also be used to treat reperfusion injury. CD4 binding
CC antibodies are used to reduce undesirable autoimmune reactions,
CC inflammatory responses and rejection of transplanted organs. The anti-IL-
CC 8 antibodies can reduce tissue damage and prolong survival in animal
CC models of acute adult respiratory distress syndrome (ARDS) and acid
CC induced lung injury. The anti-IL-8 antibodies can also be used for the
CC treatment of vasculitis, septic shock, allergic reactions (e.g. asthma)
CC and cystic fibrosis

XX

SQ Sequence 420 BP; 98 A; 116 C; 98 G; 108 T; 0 U; 0 Other;

Query Match 100.0%; Score 420; DB 2; Length 420;
Best Local Similarity 100.0%; Pred. No. 6.4e-122;
Matches 420; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy      1 AAGCTTGCCACCATGATGGTCCCAGCTCAGCTCCTCGGTCTCCTGCTGCTCTGGTTCCCA 60
        |||
Db      1 AAGCTTGCCACCATGATGGTCCCAGCTCAGCTCCTCGGTCTCCTGCTGCTCTGGTTCCCA 60

Qy     61 GGTTCAGATGCGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGA 120
        |||
Db     61 GGTTCAGATGCGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGA 120

Qy    121 GACAGAGTCACCATCACTTGTCGGGCGAGTCAGGATATTAGCAGCTGGTTAGCCTGGTAT 180
        |||
Db    121 GACAGAGTCACCATCACTTGTCGGGCGAGTCAGGATATTAGCAGCTGGTTAGCCTGGTAT 180

Qy    181 CAGCATAAACCAGGTAAAGCACCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGT 240
        |||
Db    181 CAGCATAAACCAGGTAAAGCACCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGT 240

Qy    241 GGTGTCCCATCAAGGTTTCAGCGGAAGTGGATCTGGGACAGATTTCACTCTCACCATCAGC 300
        |||
Db    241 GGTGTCCCATCAAGGTTTCAGCGGAAGTGGATCTGGGACAGATTTCACTCTCACCATCAGC 300

Qy    301 AGCCTGCAGCCTGAAGATTTTGCAACTTACTATTGTCAACAGGCTAATAGTTTCCCGTAC 360
        |||
Db    301 AGCCTGCAGCCTGAAGATTTTGCAACTTACTATTGTCAACAGGCTAATAGTTTCCCGTAC 360

Qy    361 ACTTTTGGTCAGGGAACCAAGCTGGAGATCAAACGAACTGTGGCTGCACCATCTGTCTTC 420
        |||
Db    361 ACTTTTGGTCAGGGAACCAAGCTGGAGATCAAACGAACTGTGGCTGCACCATCTGTCTTC 420
```

RESULT 3

AAZ22047

ID AAZ22047 standard; DNA; 420 BP.

XX

AC AAZ22047;

XX

DT 24-NOV-1999 (first entry)

XX

DE Nucleotide sequence of LC6G5.

XX
 KW Transgenic animal; heterologous antibody; hybridoma; B cell;
 KW transgenic mouse; human heavy chain transgene; digoxin;
 KW human light chain transgene; immortalized cell; immunoglobulin;
 KW Shinga-like toxin; autoimmune disease; cancer; infectious disease;
 KW transplant rejection; blood disorder; coagulation disorder; ss.
 XX
 OS Synthetic.
 XX
 PN WO9945962-A1.
 XX
 PD 16-SEP-1999.
 XX
 PF 12-MAR-1999; 99WO-US005535.
 XX
 PR 13-MAR-1998; 98US-00042353.
 XX
 PA (GENP-) GENPHARM INT INC.
 XX
 PI Lonberg N, Fishwild DM, Ball WJ;
 XX
 DR WPI; 1999-551219/46.
 XX
 PT Novel transgenic non-human animals used to produce heterologous
 PT antibodies.
 XX
 PS Example 42; Page 325-326; 484pp; English.
 XX
 CC The specification describes transgenic animals that are capable of
 CC producing a heterologous antibody. The antibodies are isolated from a
 CC hybridoma, comprising B cells, that is obtained from a transgenic mouse
 CC having a genome comprising a human heavy chain transgene and a human
 CC light chain transgene. The B cells are fused to immortalized cells
 CC suitable for generating a hybridoma, which produces a detectable amount
 CC of an immunoglobulin that specifically binds digoxin or Shinga-like
 CC toxin. B cells from transgenic animals can be used to generate hybridomas
 CC expressing monoclonal high affinity human sequence antibodies. Antibodies
 CC produced from the transgenic animals of the invention can be used to
 CC treat human diseases, e.g. autoimmune diseases, cancer, infectious
 CC disease, transplant rejection, blood disorders such as coagulation
 CC disorders and other diseases. The present sequence is used in the course
 CC of the invention
 XX
 SQ Sequence 420 BP; 98 A; 116 C; 98 G; 108 T; 0 U; 0 Other;

Query Match 100.0%; Score 420; DB 2; Length 420;
 Best Local Similarity 100.0%; Pred. No. 6.4e-122;
 Matches 420; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 AAGCTTGCCACCATGATGGTCCCAGCTCAGCTCCTCGGTCTCCTGCTGCTCTGGTTCCCA 60
 ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
 Db 1 AAGCTTGCCACCATGATGGTCCCAGCTCAGCTCCTCGGTCTCCTGCTGCTCTGGTTCCCA 60

 QY 61 GGTTCAGATGCGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGA 120
 ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
 Db 61 GGTTCAGATGCGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGA 120

Qy	121	GACAGAGTCACCATCACTTGTCTGGGCGAGTCAGGATATTAGCAGCTGGTTAGCCTGGTAT	180
Db	121	GACAGAGTCACCATCACTTGTCTGGGCGAGTCAGGATATTAGCAGCTGGTTAGCCTGGTAT	180
Qy	181	CAGCATAAACCAGGTAAAGCACCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGT	240
Db	181	CAGCATAAACCAGGTAAAGCACCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGT	240
Qy	241	GGTGTCCCATCAAGGTTTCAGCGGAAGTGGATCTGGGACAGATTTCACTCTCACCATCAGC	300
Db	241	GGTGTCCCATCAAGGTTTCAGCGGAAGTGGATCTGGGACAGATTTCACTCTCACCATCAGC	300
Qy	301	AGCCTGCAGCCTGAAGATTTTGCAACTTACTATTGTCAACAGGCTAATAGTTTCCCGTAC	360
Db	301	AGCCTGCAGCCTGAAGATTTTGCAACTTACTATTGTCAACAGGCTAATAGTTTCCCGTAC	360
Qy	361	ACTTTTGGTCAGGGAACCAAGCTGGAGATCAAACGAACTGTGGCTGCACCATCTGTCTTC	420
Db	361	ACTTTTGGTCAGGGAACCAAGCTGGAGATCAAACGAACTGTGGCTGCACCATCTGTCTTC	420

RESULT 4

AAT78825

ID AAT78825 standard; DNA; 3819 BP.

XX

AC AAT78325;

XX

DT 23-JAN-1998 (first entry)

XX

DE Kappa light chain plasmid pLC6G5.

XX

KW Ig; affinity constant; human; antigen; hybridoma; B cell; transgene;

KW transgenic; mouse; CD4; antibody; autoimmune; inflammatory;

KW transplant rejection; immunoglobulin; ss.

XX

OS Synthetic.

OS Homo sapiens.

XX

PN WO9713852-A1.

XX

PD 17-APR-1997.

XX

PF 10-OCT-1996; 96WO-US016433.

XX

PR 10-OCT-1995; 95US-00544404.

XX

PA (GENP-) GENPHARM INT INC.

XX

PI Lonberg N, Kay RM;

XX

DR WPI; 1997-235888/21.

XX

PT Novel anti-CD4 antibody produced by transgenic mice - used in the

PT treatment of auto-immune disease etc.

XX

PS Example 42; Page 266-268; 396pp; English.

XX

DE Plasmid pLC6G5 nucleotide sequence.

XX

KW Transgenic animal; human heterologous antibody; transgene;
KW isotype switching; neutrophil efflux; reperfusion injury; CD4 binding;
KW autoimmune reaction; inflammatory response; transplant rejection;
KW acid induced lung injury; acute adult respiratory distress syndrome;
KW ARDS; vasculitis; septic shock; allergic reaction; asthma;
KW cystic fibrosis; ss.

XX

OS Synthetic.

OS Homo sapiens.

XX

PN WO9824884-A1.

XX

PD 11-JUN-1998.

XX

PF 01-DEC-1997; 97WO-US021803.

XX

PR 02-DEC-1996; 96US-00758417.

XX

PA (GENP-) GENPHARM INT.

XX

PI Lonberg N, Kay RM;

XX

DR WPI; 1998-333306/29.

XX

PT Hybridoma producing antibody specific for interleukin-8 - used to prevent
PT efflux of neutrophils from vasculature, and treat reperfusion injury.

XX

PS Example 42; Page 317-319; 452pp; English.

XX

CC The present sequence represents a plasmid, pLC6G5, which contains a
CC synthetic kappa light chain sequence (created using oligonucleotide
CC AAV39244-65). This synthetic sequence differs from natural sequences in
CC that strings of repeated oligonucleotides are interrupted (to facilitate
CC oligonucleotide synthesis and PCR amplification), optimal translation
CC initiation sites are incorporated and HindII sites were engineered
CC upstream of the translation initiation sites. The plasmid is used in the
CC construction of minigenes for expression of IgGkappa anti-CD4 antibodies,
CC in the transgenic mouse of the invention. The specification describes
CC transgenic non-human animals, especially a mouse, which are capable of
CC producing a human heterologous antibodies of multiple isotypes by
CC undergoing isotype switching. The transgenic animals have human heavy and
CC light chain transgenes. The transgenes are capable of functionally
CC rearranging a heterologous diversity (D) gene in a variable-diversity-
CC junction (V-D-J) recombination. The transgenes include a heavy chain
CC transgene comprising at least one V, D and J gene segment, and one
CC constant region gene segment. The immunoglobulin (Ig) light chain
CC transgene comprises at least one V and J gene segment and one constant
CC region gene segment. The gene segments are heterologous to the transgenic
CC animal. The antibody can be used to prevent efflux of neutrophils from
CC vasculature. It can also be used to treat reperfusion injury. CD4 binding
CC antibodies are used to reduce undesirable autoimmune reactions,
CC inflammatory responses and rejection of transplanted organs. The anti-IL-
CC 8 antibodies can reduce tissue damage and prolong survival in animal
CC models of acute adult respiratory distress syndrome (ARDS) and acid
CC induced lung injury. The anti-IL-8 antibodies can also be used for the

CC treatment of vasculitis, septic shock, allergic reactions (e.g. asthma)
CC and cystic fibrosis
XX
SQ Sequence 3819 BP; 947 A; 1015 C; 912 G; 945 T; 0 U; 0 Other;

Query Match 100.0%; Score 420; DB 2; Length 3819;
Best Local Similarity 100.0%; Pred. No. 1.5e-121;
Matches 420; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy      1 AAGCTTGCCACCATGATGGTCCCAGCTCAGCTCCTCGGTCTCCTGCTGCTCTGGTTCCCA 60
      ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    2434 AAGCTTGCCACCATGATGGTCCCAGCTCAGCTCCTCGGTCTCCTGCTGCTCTGGTTCCCA 2493

Qy     61 GGTTCCAGATGCGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGA 120
      ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    2494 GGTTCCAGATGCGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGA 2553

Qy    121 GACAGAGTCACCATCACTTGTCTGGGCGAGTCAGGATATTAGCAGCTGGTTAGCCTGGTAT 180
      ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    2554 GACAGAGTCACCATCACTTGTCTGGGCGAGTCAGGATATTAGCAGCTGGTTAGCCTGGTAT 2613

Qy    181 CAGCATAAACCAGGTAAAGCACCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGT 240
      ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    2614 CAGCATAAACCAGGTAAAGCACCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGT 2673

Qy    241 GGTGTCCCATCAAGGTTTCAGCGGAAGTGGATCTGGGACAGATTTCACTCTCACCATCAGC 300
      ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    2674 GGTGTCCCATCAAGGTTTCAGCGGAAGTGGATCTGGGACAGATTTCACTCTCACCATCAGC 2733

Qy    301 AGCCTGCAGCCTGAAGATTTTGCAACTTACTATTGTCAACAGGCTAATAGTTTCCCGTAC 360
      ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    2734 AGCCTGCAGCCTGAAGATTTTGCAACTTACTATTGTCAACAGGCTAATAGTTTCCCGTAC 2793

Qy    361 ACTTTTGGTCAGGGAACCAAGCTGGAGATCAAACGAACTGTGGCTGCACCATCTGTCTTC 420
      ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    2794 ACTTTTGGTCAGGGAACCAAGCTGGAGATCAAACGAACTGTGGCTGCACCATCTGTCTTC 2853
```

RESULT 6

AAZ22020

ID AAZ22020 standard; DNA; 3819 BP.

XX

AC AAZ22020;

XX

DT 24-NOV-1999 (first entry)

XX

DE Nucleotide sequence of plasmid pLC6G5.

XX

KW Transgenic animal; heterologous antibody; hybridoma; B cell;

KW transgenic mouse; human heavy chain transgene; digoxin;

KW human light chain transgene; immortalized cell; immunoglobulin;

KW Shinga-like toxin; autoimmune disease; cancer; infectious disease;

KW transplant rejection; blood disorder; coagulation disorder; ss.

XX

OS Synthetic.

XX

PN WO9945962-A1.

XX PD 16-SEP-1999.
XX
XX PF 12-MAR-1999; 99WO-US005535.
XX
XX PR 13-MAR-1998; 98US-00042353.
XX
XX PA (GENP-) GENPHARM INT INC.
XX
XX PI Lonberg N, Fishwild DM, Ball WJ;
XX
XX DR WPI; 1999-551219/46.
XX
XX PT Novel transgenic non-human animals used to produce heterologous
XX PT antibodies.
XX
XX PS Example 42; Page 318-320; 484pp; English.
XX
XX CC The specification describes transgenic animals that are capable of
XX CC producing a heterologous antibody. The antibodies are isolated from a
XX CC hybridoma, comprising B cells, that is obtained from a transgenic mouse
XX CC having a genome comprising a human heavy chain transgene and a human
XX CC light chain transgene. The B cells are fused to immortalized cells
XX CC suitable for generating a hybridoma, which produces a detectable amount
XX CC of an immunoglobulin that specifically binds digoxin or Shinga-like
XX CC toxin. B cells from transgenic animals can be used to generate hybridomas
XX CC expressing monoclonal high affinity human sequence antibodies. Antibodies
XX CC produced from the transgenic animals of the invention can be used to
XX CC treat human diseases, e.g. autoimmune diseases, cancer, infectious
XX CC disease, transplant rejection, blood disorders such as coagulation
XX CC disorders and other diseases. The present sequence is used in the course
XX CC of the invention
XX
XX SQ Sequence 3819 BP; 947 A; 1015 C; 912 G; 945 T; 0 U; 0 Other;

[illegible]

Db 2674 GGTGTCCCATCAAGGTTTCAGCGGAAGTGGATCTGGGACAGATTTCACTCTCACCATCAGC 2733

Qy 301 AGCCTGCAGCCTGAAGATTTTGCAACTTACTATTGTCAACAGGCTAATAGTTTCCCGTAC 360
 |||

Db 2734 AGCCTGCAGCCTGAAGATTTTGCAACTTACTATTGTCAACAGGCTAATAGTTTCCCGTAC 2793

Qy 361 ACTTTTGGTTCAGGGAACCAAGCTGGAGATCAAACGAACTGTGGCTGCACCATCTGTCTTC 420
 |||

Db 2794 ACTTTTGGTTCAGGGAACCAAGCTGGAGATCAAACGAACTGTGGCTGCACCATCTGTCTTC 2853

RESULT 7

AAS99473

ID AAS99473 standard; cDNA; 974 BP.

XX

AC AAS99473;

XX

DT 12-MAR-2002 (first entry)

XX

DE Anti-human AILIM monoclonal antibody clone Jmab-136, light chain cDNA.

XX

KW Human; antirheumatic; antiarthritic; antidiabetic; antipsoriatic;
 KW antiallergic; antiulcer; neuroprotective; antithyroid; vasotropic;
 KW immunosuppressive; dermatological; antiinflammatory; hepatotropic;
 KW activation inducible lymphocyte immunomodulatory molecule; AILIM;
 KW monoclonal antibody; allergy; rheumatoid arthritis; diabetes mellitus;
 KW multiple sclerosis; autoimmune thyroiditis; psoriasis; hepatitis;
 KW allergic contact-type dermatitis; chronic inflammatory dermatosis;
 KW systemic lupus erythematosus; autoimmune disorder; inflammation; ss;
 KW graft versus host reaction; immune rejection; intestinal immunity;
 KW ulcerative colitis; pneumonia; nephritis; vasculitis; pancreatitis.

XX

OS Homo sapiens.

XX

PN WO200187981-A2.

XX

PD 22-NOV-2001.

XX

PF 15-MAY-2001; 2001WO-JP004035.

XX

PR 18-MAY-2000; 2000JP-00147116.

PR 30-MAR-2001; 2001JP-00099508.

XX

PA (NISB) JAPAN TOBACCO INC.

XX

PI Tsuji T, Tezuka K, Hori N;

XX

DR WPI; 2002-075313/10.

DR P-PSDB; AAU74297.

XX

PT New human monoclonal antibody that binds to activation inducible
 PT lymphocyte immunomodulatory molecule, useful for treating rheumatoid
 PT arthritis, multiple sclerosis and inflammation.

XX

PS Claim 45; Page 267-270; 300pp; English.

XX

CC The invention relates to a novel human antibody (I), preferably a human

RESULT 8

AAT73441

ID AAT73441 standard; DNA; 388 BP.

XX

AC AAT73441;

XX

DT 03-DEC-1997 (first entry)

XX

DE Human immunoglobulin light chain variable region partial transcript.

XX

KW Ig; affinity constant; human; antigen; hybridoma; B cell; transgene;

KW transgenic; mouse; CD4; antibody; autoimmune; inflammatory;

KW transplant rejection; ss.

XX

OS Homo sapiens.

XX

PN WO9713852-A1.

XX

PD 17-APR-1997.

XX

PF 10-OCT-1996; 96WO-US016433.

XX

PR 10-OCT-1995; 95US-00544404.

XX

PA (GENP-) GENPHARM INT INC.

XX

PI Lonberg N, Kay RM;

XX

DR WPI; 1997-235888/21.

XX

PT Novel anti-CD4 antibody produced by transgenic mice - used in the

PT treatment of auto-immune disease etc.

XX

PS Claim 44; Page 255; 396pp; English.

XX

CC A novel composition has been developed which comprises an immunoglobulin
 CC (Ig) having an affinity constant (Ka) of at least 2 multiply 1000000000 M
 CC -1 for binding to a predetermined human antigen. The present sequence
 CC represents a human light chain variable region partial nucleotide
 CC sequence, 10C5 kappa, which encodes an amino acid sequence from a claimed
 CC immunoglobulin that specifically binds human CD4. The anti-CD4 antibodies
 CC may be used in therapeutic and diagnostic applications, especially for
 CC the treatment of human diseases. These antibodies reduce activity of CD4
 CC cells and reduce undesirable autoimmune reactions, inflammatory response
 CC and transplant rejection. Transgenic animals are capable of producing
 CC heterologous antibodies of multiple isotypes by undergoing isotype
 CC switching. These animals produce a first Ig type that is necessary for
 CC antigen-stimulated B-cell maturation and can switch to encode and produce
 CC one or more subsequent heterologous isotypes

XX

SQ Sequence 388 BP; 89 A; 107 C; 97 G; 95 T; 0 U; 0 Other;

Query Match 87.8%; Score 368.6; DB 2; Length 388;

Best Local Similarity 97.7%; Pred. No. 9.9e-106;

Matches 374; Conservative 0; Mismatches 9; Indels 0; Gaps 0;

PR 02-DEC-1996; 96US-00758417.
 XX
 PA (GENP-) GENPHARM INT.
 XX
 PI Lonberg N, Kay RM;
 XX
 DR WPI; 1998-333306/29.
 XX
 PT Hybridoma producing antibody specific for interleukin-8 - used to prevent
 PT efflux of neutrophils from vasculature, and treat reperfusion injury.
 XX
 PS Example 41; Page 304; 452pp; English.
 XX
 CC AAV39232-41 represent functional transcripts of a human IgGKappa anti-CD4
 CC antibody. The sequences are isolated from 5 different transgenic mouse
 CC hybridoma cell lines. The specification describes transgenic non-human
 CC animals, especially a mouse, which are capable of producing a human
 CC heterologous antibodies of multiple isotypes by undergoing isotype
 CC switching. The transgenic animals have human heavy and light chain
 CC transgenes. The transgenes are capable of functionally rearranging a
 CC heterologous diversity (D) gene in a variable-diversity-junction (V-D-J)
 CC recombination. The transgenes include a heavy chain transgene comprising
 CC at least one V, D and J gene segment, and one constant region gene
 CC segment. The immunoglobulin (Ig) light chain transgene comprises at least
 CC one V and J gene segment and one constant region gene segment. The gene
 CC segments are heterologous to the transgenic animal. The antibody can be
 CC used to prevent efflux of neutrophils from vasculature. It can also be
 CC used to treat reperfusion injury. CD4 binding antibodies are used to
 CC reduce undesirable autoimmune reactions, inflammatory responses and
 CC rejection of transplanted organs. The anti-IL-8 antibodies can reduce
 CC tissue damage and prolong survival in animal models of acute adult
 CC respiratory distress syndrome (ARDS) and acid induced lung injury. The
 CC anti-IL-8 antibodies can also be used for the treatment of vasculitis,
 CC septic shock, allergic reactions (e.g. asthma) and cystic fibrosis
 XX
 SQ Sequence 388 BP; 89 A; 107 C; 97 G; 95 T; 0 U; 0 Other;

Query Match 87.8%; Score 368.6; DB 2; Length 388;
 Best Local Similarity 97.7%; Pred. No. 9.9e-106;
 Matches 374; Conservative 0; Mismatches 9; Indels 0; Gaps 0;

Qy	12	CATGATGGTCCCAGCTCAGCTCCTCGGTCTCCTGCTGCTCTGGTTCCCAGGTTCCAGATG	71
Db	6	CATGATGGTCCCCGCTCAGCTCCTGGGGCTCCTGCTGCTCTGGTTCCCAGGTTCCAGATG	65
Qy	72	CGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGAGTCAC	131
Db	66	CGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGAGTCAC	125
Qy	132	CATCACTTGTTCGGGCGAGTCAGGATATTAGCAGCTGGTTAGCCTGGTATCAGCATAAACC	191
Db	126	CATCACTTGTTCGGGCGAGTCAGGATATTAGCAGCTGGTTAGCCTGGTATCAGCATAAACC	185
Qy	192	AGGTAAAGCACCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGTGGTGTCCCATC	251
Db	186	AGGGAAAGCCCCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGTGGGGTCCCATC	245


```

Qy      132 CATCACTTGTCTGGGCGAGTCAGGATATTAGCAGCTGGTTAGCCTGGTATCAGCATAAACC 191
          |||
Db      184 CATCACTTGTCTGGGCGAGTCAGGGTATTAGCAGCTGGTTAGCCTGGTATCAGCAGAAACC 243

Qy      192 AGGTAAAGCACCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGTGGTGTCCCATC 251
          |||
Db      244 AGGGAAAGCCCCTAAGCTCCTGATCTATGCTGGATCCAGTTTGCAAAGTGGGGTCCCATC 303

Qy      252 AAGGTTTCAGCGGAAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTGCAGCC 311
          |||
Db      304 AAGGTTTCAGCGGCAGTGGATTTGGGACAGATTTCACTCTCACCATCAGCAGCCTGCAGCC 363

Qy      312 TGAAGATTTTGCAACTTACTATTGTCAACAGGCTAATAGTTTCCCGTACACTTTTGGTCA 371
          |||
Db      364 TGAAGATTTTGCAACTTACTATTGTCAACAGGCTAGCAGTTTCCCTCGGACATTTCGGCCA 423

Qy      372 GGGAACCAAGCTGGAGATCAAACGAACTGTGGCTGCACCATCTGTCTTC 420
          |||
Db      424 AGGGACCAAGGTGGAGATCAAACGTACGGTGGCTGCACCATCTGTCTTC 472

```

RESULT 12

ADM47072

ID ADM47072 standard; DNA; 711 BP.

XX

AC ADM47072;

XX

DT 03-JUN-2004 (first entry)

XX

DE Mouse anti-human G-CSF antibody light chain gene.

XX

KW methylotroph yeast; mammalian sugar chain; OCH1; alpha-1;

KW 6-mannosyl transferase; alpha-1; 2-mannosidase;

KW orotidin-5'-phosphate decarboxylase; URA3;

KW phosphoribosyl-amino-imidazole succinocarboxamide synthase; ADE1;

KW imidazole-glycerol-phosphate dehydratase; HIS3;

KW 3-isopropyl malate dehydrogenase; LEU2; proteinase A; proteinase B; PRB1;

KW PEP4; YPS1; KTR1; MN9; AOX; GAPDH; mannosyl transferase;

KW glyceraldehyde 3-phosphate dehydrogenase; mannose glycoprotein; ds; gene.

XX

OS Mus sp.

XX

PN WO2003091431-A1.

XX

PD 06-NOV-2003.

XX

PF 28-APR-2003; 2003WO-JP005464.

XX

PR 26-APR-2002; 2002JP-00127677.

XX

PA (KIRI) KIRIN BEER KK.

PA (NAAD-) NAT INST ADVANCED IND SCI & TECHNOLOGY.

XX

PI Kobayashi K, Kitagawa Y, Komeda T, Kawashima N, Jigami Y;

PI Chiba Y;

XX

DR WPI; 2003-854401/79.

XX
PT Producing methylotroph yeast that expresses mammalian sugar chains by
PT disrupting the OCH1 gene and inserting an alpha-1,2-mannosidase gene.
XX
PS Example 28; SEQ ID NO 91; 247pp; Japanese.
XX
CC The invention relates to the production of a methylotroph yeast that
CC produces mammalian sugar chains, comprising disrupting the OCH1 gene in
CC the yeast that encodes for alpha-1,6-mannosyl transferase and inserting
CC and expressing the alpha-1,2-mannosidase gene. The specification also
CC includes DNA sequences encoding: (a) orotidin-5'-phosphate decarboxylase
CC (URA3); (b) phosphoribosyl-amino-imidazole succinocarboxamide synthase
CC (ADE1); (c) imidazole-glycerol-phosphate dehydratase (HIS3); (d) 3-
CC isopropyl malate dehydrogenase (LEU2); (e) alpha-1,6-mannosyl transferase
CC (OCH1); (f) proteinase A (PEP4); (g) proteinase B (PRB1); and (h)
CC aspartic protease (YPS1), mannosyl transferase (KTR1 or MNN9), alcohol
CC oxidase (AOX) and glyceraldehyde 3-phosphate dehydrogenase (GAPDH) gene
CC sequences. The yeast is used for the production of human and mammalian
CC high mannose glycoproteins with high yield and purity. The method is also
CC useful for producing hybrid or complex sugar chains containing mammalian
CC type chains. This sequence represents the gene encoding a mouse anti-
CC human G-CSF antibody light chain used in the invention.
XX
SQ Sequence 711 BP; 176 A; 203 C; 182 G; 150 T; 0 U; 0 Other;

Query Match 87.0%; Score 365.6; DB 11; Length 711;
Best Local Similarity 93.0%; Pred. No. 1.1e-104;
Matches 383; Conservative 0; Mismatches 29; Indels 0; Gaps 0;

Qy	9	CACCATGATGGTCCCAGCTCAGCTCCTCGGTCTCCTGCTGCTCTGGTTCCCAGGTTCCAG	68
Db	3	CACCATGAGGGTCCCCGCTCAGCTCCTGGGGCTCCTGCTGCTCTGGCTCCCAGGTGCACG	62
Qy	69	ATGCGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGAGT	128
Db	63	ATGTGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGAGT	122
Qy	129	CACCATCACTTGTCGGGCGAGTCAGGATATTAGCAGCTGGTTAGCCTGGTATCAGCATAA	188
Db	123	CACCATCACTTGTCGGGCGAGTCAGGTTATTAGCAGCTGGTTAGCCTGGTATCAGCAGAA	182
Qy	189	ACCAGGTAAAGCACCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGTGGTGTCCC	248
Db	183	ACCAGGGAAAGCCCCCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGTGGGGTCCC	242
Qy	249	ATCAAGGTTTCAGCGGAAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTGCA	308
Db	243	ATCAAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTGCA	302
Qy	309	GCCTGAAGATTTTGCAACTTACTATTGTCAACAGGCTAATAGTTTCCCGTACACTTTTGG	368
Db	303	GCCTGAAGATTTTGCAACTTACTATTGTCAACAGGCTAACAGTTTCCCTCCGACGTTCCGG	362
Qy	369	TCAGGGAACCAAGCTGGAGATCAAACGAACTGTGGCTGCACCATCTGTCTTC	420
Db	363	CCAAGGGACCAAGGTGGAATCAAACGTACGGTGGCTGCACCATCTGTCTTC	414

RESULT 13

ADE28412

ID ADE28412 standard; cDNA; 705 BP.

XX

AC ADE28412;

XX

DT 29-JAN-2004 (first entry)

XX

DE Human anti-CD40 antibody 10-8-3 variable region light chain cDNA.

XX

KW anti-CD40 monoclonal antibody; CD40; cytostatic; virucide; antibacterial;

KW immunostimulant; anti-HIV; hyperproliferative; cancer; viral;

KW bacterial infection; immunodeficiency; neutropenia; HIV; gene therapy;

KW human; variable region light chain; ss; gene; 10-8-3.

XX

OS Homo sapiens.

XX

PN WO2003040170-A2.

XX

PD 15-MAY-2003.

XX

PF 08-NOV-2002; 2002WO-US036107.

XX

PR 09-NOV-2001; 2001US-0348980P.

XX

PA (PFIZ) PFIZER PROD INC.

PA (ABGE-) ABGENIX INC.

XX

PI Bedian V, Gladue RP, Corvalan J, Jia X, Feng X;

XX

DR WPI; 2003-441521/41.

DR P-PSDB; ADE28413.

XX

PT New chimeric or human monoclonal antibody or its antigen-binding portion
PT that specifically binds to and activates human CD40, useful for enhancing
PT an immune response in a human, or treating cancer, HIV, neutropenia or
PT viral infections.

XX

PS Claim 24; SEQ ID NO 19; 177pp; English.

XX

CC The invention relates to a novel chimeric or human monoclonal antibody or
CC its antigen-binding portion that specifically binds to and activates
CC human CD40. The anti-CD40 antibody of the invention demonstrates
CC cytostatic, virucide, antibacterial, immunostimulant and anti-HIV
CC activities and may be useful for treating a hyperproliferative disorder
CC such as cancer, viral and bacterial infection or genetic, primary or
CC combined immunodeficiency conditions including neutropenia or HIV
CC infection. The anti-CD40 antibodies may also be useful for detecting CD40
CC in a biological sample in vitro or in vivo, as well as during gene
CC therapy procedures. The current sequence is that of the human anti-CD40
CC antibody variable region light chain cDNA of the invention.

XX

SQ Sequence 705 BP; 172 A; 201 C; 179 G; 153 T; 0 U; 0 Other;

Query Match 86.1%; Score 361.6; DB 10; Length 705;

Best Local Similarity 92.9%; Pred. No. 2e-103;

Matches 379; Conservative 0; Mismatches 29; Indels 0; Gaps 0;

```
Qy      13 ATGATGGTCCCAGCTCAGCTCCTCGGTCTCCTGCTGCTCTGGTTCCCAGGTTCCAGATGC 72
      |||| | |||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db      1 ATGAGGCTCCCTGCTCAGCTCCTGGGGCTCCTGCTGCTCTGGTTCCCAGGTTCCAGATGC 60

Qy     73 GACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGAGTCACC 132
      ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db     61 GACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGAGTCACC 120

Qy    133 ATCACTTGTCGGGCGAGTCAGGATATTAGCAGCTGGTTAGCCTGGTATCAGCATAAACCA 192
      ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db    121 ATCACTTGTCGGGCGAGTCAGCCTATTAGCAGCTGGTTAGCCTGGTATCAGCAGAAACCA 180

Qy    193 GGTAAAGCACCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGTGGTGTCCCATCA 252
      || ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db    181 GGGAAAGCCCCTAAACTCCTGATTTATTCTGCCTCCGTTTGCAAAGTGGGGTCCCATCA 240

Qy    253 AGGTTCAGCGGAAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTGCAGCCT 312
      ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db    241 AGGTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTGCAGCCT 300

Qy    313 GAAGATTTTGCAACTTACTATTGTCAACAGGCTAATAGTTTCCCGTACACTTTTGGTCAG 372
      ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db    301 GAAGATTTTGCAACTTACTATTGTCAACAGACTGACAGTTTCCCGCTCACTTTTCGGCGGC 360

Qy    373 GGAACCAAGCTGGAGATCAAACGAACTGTGGCTGCACCATCTGTCTTC 420
      || ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db    361 GGGACCAAGGTGGAGATCAAACGAACTGTGGCTGCACCATCTGTCTTC 408
```

RESULT 14

ADE28428

ID ADE28428 standard; cDNA; 705 BP.

XX

AC ADE28428;

XX

DT 29-JAN-2004 (first entry)

XX

DE Human anti-CD40 antibody 21-2-1 variable region light chain cDNA.

XX

KW anti-CD40 monoclonal antibody; CD40; cytostatic; virucide; antibacterial;

KW immunostimulant; anti-HIV; hyperproliferative; cancer; viral;

KW bacterial infection; immunodeficiency; neutropenia; HIV; gene therapy;

KW human; variable region light chain; ss; gene; 21-2-1.

XX

OS Homo sapiens.

XX

PN WO2003040170-A2.

XX

PD 15-MAY-2003.

XX

PF 08-NOV-2002; 2002WO-US036107.

XX

PR 09-NOV-2001; 2001US-0348980P.

XX

PA (PFIZ) PFIZER PROD INC.

PA (ABGE-) ABGENIX INC.
XX
PI Bedian V, Gladue RP, Corvalan J, Jia X, Feng X;
XX
DR WPI; 2003-441521/41.
DR P-PSDB; ADE28429.
XX
PT New chimeric or human monoclonal antibody or its antigen-binding portion
PT that specifically binds to and activates human CD40, useful for enhancing
PT an immune response in a human, or treating cancer, HIV, neutropenia or
PT viral infections.
XX
PS Claim 24; SEQ ID NO 35; 177pp; English.
XX
CC The invention relates to a novel chimeric or human monoclonal antibody or
CC its antigen-binding portion that specifically binds to and activates
CC human CD40. The anti-CD40 antibody of the invention demonstrates
CC cytostatic, virucide, antibacterial, immunostimulant and anti-HIV
CC activities and may be useful for treating a hyperproliferative disorder
CC such as cancer, viral and bacterial infection or genetic, primary or
CC combined immunodeficiency conditions including neutropenia or HIV
CC infection. The anti-CD40 antibodies may also be useful for detecting CD40
CC in a biological sample in vitro or in vivo, as well as during gene
CC therapy procedures. The current sequence is that of the human anti-CD40
CC antibody variable region light chain cDNA of the invention.
XX
SQ Sequence 705 BP; 177 A; 200 C; 175 G; 153 T; 0 U; 0 Other;

[illegible]

Db

361 GGGACCAAGGTGGAGATCAAACGAACTGTGGCTGCACCATCTGTCTTC 408

RESULT 15

AAT73443

ID AAT73443 standard; DNA; 439 BP.

XX

AC AAT73443;

XX

DT 03-DEC-1997 (first entry)

XX

DE Human immunoglobulin light chain variable region partial transcript.

XX

KW Ig; affinity constant; human; antigen; hybridoma; B cell; transgene;

KW transgenic; mouse; CD4; antibody; autoimmune; inflammatory;

KW transplant rejection; ss.

XX

OS Homo sapiens.

XX

PN WO9713852-A1.

XX

PD 17-APR-1997.

XX

PF 10-CCT-1996; 96WO-US016433.

XX

PR 10-OCT-1995; 95US-00544404.

XX

PA (GENP-) GENPHARM INT INC.

XX

PI Lonberg N, Kay RM;

XX

DR WPI; 1997-235888/21.

XX

PT Novel anti-CD4 antibody produced by transgenic mice - used in the

PT treatment of auto-immune disease etc.

XX

PS Claim 44; Page 256; 396pp; English.

XX

CC A novel composition has been developed which comprises an immunoglobulin
CC (Ig) having an affinity constant (Ka) of at least 2 multiply 1000000000 M
CC -1 for binding to a predetermined human antigen. The present sequence
CC represents a human light chain variable region partial nucleotide
CC sequence, 4D1 kappa, which encodes an amino acid sequence from a claimed
CC immunoglobulin that specifically binds human CD4. The anti-CD4 antibodies
CC may be used in therapeutic and diagnostic applications, especially for
CC the treatment of human diseases. These antibodies reduce activity of CD4
CC cells and reduce undesirable autoimmune reactions, inflammatory response
CC and transplant rejection. Transgenic animals are capable of producing
CC heterologous antibodies of multiple isotypes by undergoing isotype
CC switching. These animals produce a first Ig type that is necessary for
CC antigen-stimulated B-cell maturation and can switch to encode and produce
CC one or more subsequent heterologous isotypes

XX

SQ Sequence 439 BP; 100 A; 122 C; 106 G; 111 T; 0 U; 0 Other;

Query Match

85.2%; Score 357.8; DB 2; Length 439;

Best Local Similarity 92.2%; Pred. No. 2.6e-102;
Matches 377; Conservative 0; Mismatches 32; Indels 0; Gaps 0;

```
Qy      12 CATGATGGTCCCAGCTCAGCTCCTCGGTCTCCTGCTGCTCTGGTCCCAGGTCCAGATG 71
      ||| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
Db      6 CATGGAGTTCCCCGTTTCAGCTCCTGGGGCTCCTGCTGCTCTGTTTCCCAGGTGCCAGATG 65

Qy     72 CGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGAGTCAC 131
      ||| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
Db     66 TGACATCCAGATGACCCAGTCTCCATCCTCACTGTCTGCATCTGTAGGAGACAGAGTCAC 125

Qy    132 CATCACTTGTTCGGGCGAGTCAGGATATTAGCAGCTGGTTAGCCTGGTATCAGCATAAACC 191
      ||| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
Db    126 CATCACTTGTTCGGGCGAGTCAGGATATTAGCAGCTGGTTAGCCTGGTATCAGCAGAAACC 185

Qy    192 AGGTAAAGCACCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGTGGTGTCCCATC 251
      || | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
Db    186 AGAGAAAGCCCCTAAGTCCCTGATCTATTCTGCATCCAGTTTGCAAAGTGGGGTCCCATC 245

Qy    252 AAGGTTTCAGCGGAAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTGCAGCC 311
      ||| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
Db    246 AAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTGCAGCC 305

Qy    312 TGAAGATTTTGCAACTTACTATTGTCAACAGGCTAATAGTTTCCCGTACACTTTTGGTCA 371
      ||| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
Db    306 TGAAGATTTTGCAACTTATTACTGCCAACAGTATGATAGTTACCCGTACACTTTTGGCCA 365

Qy    372 GGGAAACCAAGCTGGAGATCAAACGAACTGTGGCTGCACCATCTGTCTTC 420
      ||| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
Db    366 GGGGACCAAGCTGGAGATCAAACGAACTGTGGCTGCACCATCTGTCTTC 414
```

Search completed: December 2, 2004, 13:06:03
Job time : 326.197 secs

GenCore version 5.1.6
Copyright (c) 1993 - 2004 Compugen Ltd.

OM nucleic - nucleic search, using sw model

Run on: December 2, 2004, 12:19:03 ; Search time 61.3429 Seconds
(without alignments)
4866.596 Million cell updates/sec

Title: US-08-728-463B-220
Perfect score: 420
Sequence: 1 AAGCTTGCCACCATGATGGT.....TGGCTGCACCATCTGTCTTC 420

Scoring table: IDENTITY_NUC
Gapop 10.0 , Gapext 1.0

Searched: 824507 seqs, 355394441 residues

Total number of hits satisfying chosen parameters: 1649014

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Issued_Patents_NA:*
1: /cgn2_6/ptodata/1/ina/5A_COMB.seq:*
2: /cgn2_6/ptodata/1/ina/5B_COMB.seq:*
3: /cgn2_6/ptodata/1/ina/6A_COMB.seq:*
4: /cgn2_6/ptodata/1/ina/6B_COMB.seq:*
5: /cgn2_6/ptodata/1/ina/PCTUS_COMB.seq:*
6: /cgn2_6/ptodata/1/ina/backfiles1.seq:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Match	Query Length	ID	Description	
1	420	100.0	420	3	US-09-042-353-420	Sequence 420, App
2	420	100.0	420	3	US-08-758-417A-220	Sequence 220, App
3	420	100.0	3819	3	US-09-042-353-393	Sequence 393, App
4	420	100.0	3819	3	US-08-758-417A-243	Sequence 243, App
5	368.6	87.8	388	3	US-09-042-353-358	Sequence 358, App
6	368.6	87.8	388	3	US-08-758-417A-206	Sequence 206, App
7	357.8	85.2	439	3	US-09-042-353-360	Sequence 360, App
8	357.8	85.2	439	3	US-08-758-417A-208	Sequence 208, App
9	332.2	79.1	714	4	US-09-472-087-62	Sequence 62, Appl
10	330.6	78.7	1066	1	US-08-157-101A-4	Sequence 4, Appli
11	325.8	77.6	19040	4	US-09-343-485A-3	Sequence 3, Appli
12	323.2	77.0	384	1	US-08-259-372A-13	Sequence 13, Appl
13	323.2	77.0	384	1	US-08-468-671-13	Sequence 13, Appl
14	319.4	76.0	390	2	US-08-646-367-2	Sequence 2, Appli
15	308.8	73.5	705	1	US-08-488-376-16	Sequence 16, Appl
16	308.8	73.5	705	2	US-08-634-223-16	Sequence 16, Appl
17	308.8	73.5	705	2	US-08-634-224-16	Sequence 16, Appl
18	308.8	73.5	705	2	US-08-634-400-16	Sequence 16, Appl
19	308.8	73.5	705	2	US-08-635-878-16	Sequence 16, Appl
20	308.8	73.5	705	2	US-08-770-057-16	Sequence 16, Appl
21	308.8	73.5	705	3	US-09-335-697B-16	Sequence 16, Appl
22	308.8	73.5	705	4	US-09-335-697B-16	Sequence 16, Appl
23	308.8	73.5	705	4	US-09-740-002-16	Sequence 16, Appl
24	302	71.9	387	3	US-08-803-085-3	Sequence 3, Appli
25	295	70.2	990	4	US-09-800-729-79	Sequence 79, Appl
26	294	70.0	387	1	US-08-217-918-1	Sequence 1, Appli
27	282.6	67.3	708	1	US-08-488-376-18	Sequence 18, Appl
28	282.6	67.3	708	2	US-08-634-223-18	Sequence 18, Appl
29	282.6	67.3	708	2	US-08-634-224-18	Sequence 18, Appl
30	282.6	67.3	708	2	US-08-634-400-18	Sequence 18, Appl
31	282.6	67.3	708	2	US-08-635-878-18	Sequence 18, Appl
32	282.6	67.3	708	2	US-08-770-057-18	Sequence 18, Appl
33	282.6	67.3	708	3	US-09-335-697B-18	Sequence 18, Appl
34	282.6	67.3	708	4	US-09-335-697B-18	Sequence 18, Appl

35	282.6	67.3	708	4	US-09-740-002-18	Sequence 18, Appl
36	280.8	66.9	642	1	US-08-157-101A-8	Sequence 8, Appli
37	279.4	66.5	941	4	US-09-800-729-81	Sequence 81, Appl
c 38	276.6	65.9	371	4	US-09-389-681-187	Sequence 187, App
c 39	276.6	65.9	371	4	US-09-620-405B-187	Sequence 187, App
c 40	276.6	65.9	371	4	US-09-339-338-187	Sequence 187, App
c 41	276.6	65.9	371	4	US-09-433-826B-187	Sequence 187, App
c 42	276.6	65.9	371	4	US-09-604-287A-187	Sequence 187, App
c 43	276.6	65.9	371	4	US-09-834-759-187	Sequence 187, App
c 44	276.6	65.9	371	4	US-09-590-751A-187	Sequence 187, App
45	273.8	65.2	411	4	US-09-582-337-23	Sequence 23, Appl

ALIGNMENTS

RESULT 1

US-09-042-353-420

; Sequence 420, Application US/09042353

; Patent No. 6255458

; GENERAL INFORMATION:

; APPLICANT: Lonberg, Nils

; APPLICANT: Kay, Robert M.

; TITLE OF INVENTION: Transgenic No. 6255458-Human Animals for

; TITLE OF INVENTION: Producing Heterologous Antibodies

; NUMBER OF SEQUENCES: 421

; CORRESPONDENCE ADDRESS:

; ADDRESSEE: Townsend and Townsend and Crew LLP

; STREET: Two Embarcadero Center, Eighth Floor

; CITY: San Francisco

; STATE: California

; COUNTRY: USA

; ZIP: 94111-3834

; COMPUTER READABLE FORM:

; MEDIUM TYPE: Floppy disk

; COMPUTER: IBM PC compatible

; OPERATING SYSTEM: PC-DOS/MS-DOS

; SOFTWARE: PatentIn Release #1.0, Version #1.30

; CURRENT APPLICATION DATA:

; APPLICATION NUMBER: US/09/042,353

; FILING DATE: 13-MAR-1998

; CLASSIFICATION: 800

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 07/810,279

; FILING DATE: 17-DEC-1991

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 07/853,408

; FILING DATE: 18-MAR-1992

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 07/904,068

; FILING DATE: 23-JUN-1992

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 07/990,860

; FILING DATE: 16-DEC-1992

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 08/053,131

; FILING DATE: 26-APR-1993


```

; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/096,762
; FILING DATE: 22-JUL-1993
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/155,301
; FILING DATE: 18-NOV-1993
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/161,739
; FILING DATE: 03-DEC-1993
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/165,699
; FILING DATE: 10-DEC-1993
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/209,741
; FILING DATE: 09-MAR-1994
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/352,322
; FILING DATE: 07-DEC-1994
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/544,404
; FILING DATE: 10-OCT-1995
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/728,463
; FILING DATE: 10-OCT-1996
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: WO PCT/US96/16433
; FILING DATE: 10-OCT-1996
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/758,417
; FILING DATE: 02-DEC-1996
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: WO PCT/US97/21803
; FILING DATE: 01-DEC-1997
; ATTORNEY/AGENT INFORMATION:
; NAME: Apple, Randolph T.
; REGISTRATION NUMBER: 36,429
; REFERENCE/DOCKET NUMBER: 014643-009040US
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (415) 576-0200
; TELEFAX: (415) 576-0300
; INFORMATION FOR SEQ ID NO: 420:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 420 base pairs
; TYPE: nucleic acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: DNA
US-09-042-353-420

```

```

Query Match      100.0%; Score 420; DB 3; Length 420;
Best Local Similarity 100.0%; Pred. No. 1.7e-123;
Matches 420; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```

```

Qy      1 AAGCTTGCCACCATGATGGTCCCAGCTCAGCTCCTCGGTCTCCTGCTGCTCTGGTTCCCA 60
        |||||
Db      1 AAGCTTGCCACCATGATGGTCCCAGCTCAGCTCCTCGGTCTCCTGCTGCTCTGGTTCCCA 60

```

[illegible]

US-08-758-417A-220

; Patent No. 6300129

APPLICANT: Lonberg, Nils

TITLE OF INVENTION: Transgenic No. 6300129-Human Animals for
Producing Heterologous Antibodies

CORRESPONDENCE ADDRESS:

STREET: Two Embarcadero Center, Eighth Floor

; STATE: California

; ZIP: 94111-3834

```
;          MEDIUM TYPE: Floppy disk
```

```
;      OPERATING SYSTEM: PC-DOS/MS-DOS
```

```

;          CURRENT APPLICATION DATA:

```

FILING DATE: 02-Dec-1996

; PRIOR APPLICATION DATA:

; FILING DATE: 10-OCT-1996

; FILING DATE: 10-OCT-1995

```

; FILING DATE: 07-DEC-1994
; APPLICATION NUMBER: US 08/209,741
; FILING DATE: 09-MAR-1994
; APPLICATION NUMBER: US 08/165,699
; FILING DATE: 10-DEC-1993
; APPLICATION NUMBER: US 08/161,739
; FILING DATE: 03-DEC-1993
; APPLICATION NUMBER: US 08/155,301
; FILING DATE: 18-NOV-1993
; APPLICATION NUMBER: US 08/096,762
; FILING DATE: 22-JUL-1993
; APPLICATION NUMBER: US 08/053,131
; FILING DATE: 26-APR-1993
; APPLICATION NUMBER: US 07/990,860
; FILING DATE: 16-DEC-1992
; ATTORNEY/AGENT INFORMATION:
; NAME: Serafini, Andrew T.
; REGISTRATION NUMBER: 41,303
; REFERENCE/DOCKET NUMBER: 014643-009030US
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (415) 576-0200
; TELEFAX: (415) 576-0300
; INFORMATION FOR SEQ ID NO: 220:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 420 base pairs
; TYPE: nucleic acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: DNA
; SEQUENCE DESCRIPTION: SEQ ID NO: 220:
US-08-758-417A-220

```

```

Query Match          100.0%; Score 420; DB 3; Length 420;
Best Local Similarity 100.0%; Pred. No. 1.7e-123;
Matches 420; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```

```

Qy      1 AAGCTTGCCACCATGATGGTCCCAGCTCAGCTCCTCGGTCTCCTGCTGCTCTGGTTCCCA 60
        |||
Db      1 AAGCTTGCCACCATGATGGTCCCAGCTCAGCTCCTCGGTCTCCTGCTGCTCTGGTTCCCA 60

Qy     61 GGTTCAGATGCGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGA 120
        |||
Db     61 GGTTCAGATGCGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGA 120

Qy    121 GACAGAGTCACCATCACTTGTCGGGCGAGTCAGGATATTAGCAGCTGGTTAGCCTGGTAT 180
        |||
Db    121 GACAGAGTCACCATCACTTGTCGGGCGAGTCAGGATATTAGCAGCTGGTTAGCCTGGTAT 180

Qy    181 CAGCATAAACCAGGTAAAGCACCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGT 240
        |||
Db    181 CAGCATAAACCAGGTAAAGCACCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGT 240

Qy    241 GGTGTCCCATCAAGGTTTCAGCGGAAGTGGATCTGGGACAGATTTCACTCTCACCATCAGC 300
        |||
Db    241 GGTGTCCCATCAAGGTTTCAGCGGAAGTGGATCTGGGACAGATTTCACTCTCACCATCAGC 300

Qy    301 AGCCTGCAGCCTGAAGATTTTGCAACTTACTATTGTCAACAGGCTAATAGTTTCCCGTAC 360

```

```

Db      301 AGCCTGCAGCCTGAAGATTTTGCAACTTACTATTGTCAACAGGCTAATAGTTTCCCGTAC 360
Qy      361 ACTTTTGGTCAGGGAACCAAGCTGGAGATCAAACGAACTGTGGCTGCACCATCTGTCTTC 420
Db      361 ACTTTTGGTCAGGGAACCAAGCTGGAGATCAAACGAACTGTGGCTGCACCATCTGTCTTC 420

```

RESULT 3

US-09-042-353-393

; Sequence 393, Application US/09042353

; Patent No. 6255458

; GENERAL INFORMATION:

; APPLICANT: Lonberg, Nils

; APPLICANT: Kay, Robert M.

; TITLE OF INVENTION: Transgenic No. 6255458-Human Animals for

; TITLE OF INVENTION: Producing Heterologous Antibodies

; NUMBER OF SEQUENCES: 421

; CORRESPONDENCE ADDRESS:

; ADDRESSEE: Townsend and Townsend and Crew LLP

; STREET: Two Embarcadero Center, Eighth Floor

; CITY: San Francisco

; STATE: California

; COUNTRY: USA

; ZIP: 94111-3834

; COMPUTER READABLE FORM:

; MEDIUM TYPE: Floppy disk

; COMPUTER: IBM PC compatible

; OPERATING SYSTEM: PC-DOS/MS-DOS

; SOFTWARE: PatentIn Release #1.0, Version #1.30

; CURRENT APPLICATION DATA:

; APPLICATION NUMBER: US/09/042,353

; FILING DATE: 13-MAR-1998

; CLASSIFICATION: 800

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 07/810,279

; FILING DATE: 17-DEC-1991

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 07/853,408

; FILING DATE: 18-MAR-1992

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 07/904,068

; FILING DATE: 23-JUN-1992

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 07/990,860

; FILING DATE: 16-DEC-1992

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 08/053,131

; FILING DATE: 26-APR-1993

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 08/096,762

; FILING DATE: 22-JUL-1993

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 08/155,301

; FILING DATE: 18-NOV-1993

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 08/161,739

```

; FILING DATE: 03-DEC-1993
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/165,699
; FILING DATE: 10-DEC-1993
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/209,741
; FILING DATE: 09-MAR-1994
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/352,322
; FILING DATE: 07-DEC-1994
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/544,404
; FILING DATE: 10-OCT-1995
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/728,463
; FILING DATE: 10-OCT-1996
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: WO PCT/US96/16433
; FILING DATE: 10-OCT-1996
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/758,417
; FILING DATE: 02-DEC-1996
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: WO PCT/US97/21803
; FILING DATE: 01-DEC-1997
; ATTORNEY/AGENT INFORMATION:
; NAME: Apple, Randolph T.
; REGISTRATION NUMBER: 36,429
; REFERENCE/DOCKET NUMBER: 014643-009040US
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (415) 576-0200
; TELEFAX: (415) 576-0300
; INFORMATION FOR SEQ ID NO: 393:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 3819 base pairs
; TYPE: nucleic acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: DNA
US-09-042-353-393

```

```

Query Match          100.0%; Score 420; DB 3; Length 3819;
Best Local Similarity 100.0%; Pred. No. 3.9e-123;
Matches 420; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```

```

Qy      1 AAGCTTGCCACCATGATGGTCCCAGCTCAGCTCCTCGGTCTCCTGCTGCTCTGGTTCCCA 60
        ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      2434 AAGCTTGCCACCATGATGGTCCCAGCTCAGCTCCTCGGTCTCCTGCTGCTCTGGTTCCCA 2493

Qy      61 GGTTCCAGATGCGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGA 120
        ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      2494 GGTTCCAGATGCGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGA 2553

Qy      121 GACAGAGTCACCATCACTTGTCGGGCGAGTCAGGATATTAGCAGCTGGTTAGCCTGGTAT 180
        ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      2554 GACAGAGTCACCATCACTTGTCGGGCGAGTCAGGATATTAGCAGCTGGTTAGCCTGGTAT 2613

```

Qy 181 CAGCATAAACCAGGTAAAGCACCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGT 240
 |||
 Db 2614 CAGCATAAACCAGGTAAAGCACCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGT 2673
 Qy 241 GGTGTCCCATCAAGGTTTCAGCGGAAGTGGATCTGGGACAGATTTCACTCTCACCATCAGC 300
 |||
 Db 2674 GGTGTCCCATCAAGGTTTCAGCGGAAGTGGATCTGGGACAGATTTCACTCTCACCATCAGC 2733
 Qy 301 AGCCTGCAGCCTGAAGATTTTGCAACTTACTATTGTCAACAGGCTAATAGTTTCCCGTAC 360
 |||
 Db 2734 AGCCTGCAGCCTGAAGATTTTGCAACTTACTATTGTCAACAGGCTAATAGTTTCCCGTAC 2793
 Qy 361 ACTTTTGGTCAGGGAACCAAGCTGGAGATCAAACGAACTGTGGCTGCACCATCTGTCTTC 420
 |||
 Db 2794 ACTTTTGGTCAGGGAACCAAGCTGGAGATCAAACGAACTGTGGCTGCACCATCTGTCTTC 2853

RESULT 4

US-08-758-417A-243

; Sequence 243, Application US/08758417A

; Patent No. 6300129

; GENERAL INFORMATION:

; APPLICANT: Lonberg, Nils

; Kay, Robert M.

; TITLE OF INVENTION: Transgenic No. 6300129-Human Animals for
 ; Producing Heterologous Antibodies

; NUMBER OF SEQUENCES: 417

; CORRESPONDENCE ADDRESS:

; ADDRESSEE: Townsend and Townsend and Crew LLP

; STREET: Two Embarcadero Center, Eighth Floor

; CITY: San Francisco

; STATE: California

; COUNTRY: USA

; ZIP: 94111-3834

; COMPUTER READABLE FORM:

; MEDIUM TYPE: Floppy disk

; COMPUTER: IBM PC compatible

; OPERATING SYSTEM: PC-DOS/MS-DOS

; SOFTWARE: PatentIn Release #1.0, Version #1.30

; CURRENT APPLICATION DATA:

; APPLICATION NUMBER: US/08/758,417A

; FILING DATE: 02-Dec-1996

; CLASSIFICATION: <Unknown>

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 08/728,463

; FILING DATE: 10-OCT-1996

; APPLICATION NUMBER: US 08/544,404

; FILING DATE: 10-OCT-1995

; APPLICATION NUMBER: US 08/352,322

; FILING DATE: 07-DEC-1994

; APPLICATION NUMBER: US 08/209,741

; FILING DATE: 09-MAR-1994

; APPLICATION NUMBER: US 08/165,699

; FILING DATE: 10-DEC-1993

; APPLICATION NUMBER: US 08/161,739

; FILING DATE: 03-DEC-1993

; APPLICATION NUMBER: US 08/155,301

```

; FILING DATE: 18-NOV-1993
; APPLICATION NUMBER: US 08/096,762
; FILING DATE: 22-JUL-1993
; APPLICATION NUMBER: US 08/053,131
; FILING DATE: 26-APR-1993
; APPLICATION NUMBER: US 07/990,860
; FILING DATE: 16-DEC-1992
; ATTORNEY/AGENT INFORMATION:
; NAME: Serafini, Andrew T.
; REGISTRATION NUMBER: 41,303
; REFERENCE/DOCKET NUMBER: 014643-009030US
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (415) 576-0200
; TELEFAX: (415) 576-0300
; INFORMATION FOR SEQ ID NO: 243:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 3819 base pairs
; TYPE: nucleic acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: DNA
; SEQUENCE DESCRIPTION: SEQ ID NO: 243:
US-08-758-417A-243

```

```

Query Match          100.0%; Score 420; DB 3; Length 3819;
Best Local Similarity 100.0%; Pred. No. 3.9e-123;
Matches 420; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```

```

Qy      1 AAGCTTGCCACCATGATGGTCCCAGCTCAGCTCCTCGGTCTCCTGCTGCTCTGGTTCCCA 60
      ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      2434 AAGCTTGCCACCATGATGGTCCCAGCTCAGCTCCTCGGTCTCCTGCTGCTCTGGTTCCCA 2493

Qy      61 GGTTCCAGATGCGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGA 120
      ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      2494 GGTTCCAGATGCGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGA 2553

Qy      121 GACAGAGTCACCATCACTTGTCGGGCGAGTCAGGATATTAGCAGCTGGTTAGCCTGGTAT 180
      ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      2554 GACAGAGTCACCATCACTTGTCGGGCGAGTCAGGATATTAGCAGCTGGTTAGCCTGGTAT 2613

Qy      181 CAGCATAAACCAGGTAAAGCACCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGT 240
      ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      2614 CAGCATAAACCAGGTAAAGCACCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGT 2673

Qy      241 GGTGTCCCATCAAGGTTTCAGCGGAAGTGGATCTGGGACAGATTTCACTCTCACCATCAGC 300
      ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      2674 GGTGTCCCATCAAGGTTTCAGCGGAAGTGGATCTGGGACAGATTTCACTCTCACCATCAGC 2733

Qy      301 AGCCTGCAGCCTGAAGATTTTGCAACTTACTATTGTCAACAGGCTAATAGTTTCCCGTAC 360
      ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      2734 AGCCTGCAGCCTGAAGATTTTGCAACTTACTATTGTCAACAGGCTAATAGTTTCCCGTAC 2793

Qy      361 ACTTTTGGTCAGGGAACCAAGCTGGAGATCAAACGAACTGTGGCTGCACCATCTGTCTTC 420
      ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      2794 ACTTTTGGTCAGGGAACCAAGCTGGAGATCAAACGAACTGTGGCTGCACCATCTGTCTTC 2853

```

RESULT 5

US-09-042-353-358

; Sequence 358, Application US/09042353

; Patent No. 6255458

; GENERAL INFORMATION:

; APPLICANT: Lonberg, Nils

; APPLICANT: Kay, Robert M.

; TITLE OF INVENTION: Transgenic No. 6255458-Human Animals for

; TITLE OF INVENTION: Producing Heterologous Antibodies

; NUMBER OF SEQUENCES: 421

; CORRESPONDENCE ADDRESS:

; ADDRESSEE: Townsend and Townsend and Crew LLP

; STREET: Two Embarcadero Center, Eighth Floor

; CITY: San Francisco

; STATE: California

; COUNTRY: USA

; ZIP: 94111-3834

; COMPUTER READABLE FORM:

; MEDIUM TYPE: Floppy disk

; COMPUTER: IBM PC compatible

; OPERATING SYSTEM: PC-DOS/MS-DOS

; SOFTWARE: PatentIn Release #1.0, Version #1.30

; CURRENT APPLICATION DATA:

; APPLICATION NUMBER: US/09/042,353

; FILING DATE: 13-MAR-1998

; CLASSIFICATION: 800

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 07/810,279

; FILING DATE: 17-DEC-1991

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 07/853,408

; FILING DATE: 18-MAR-1992

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 07/904,068

; FILING DATE: 23-JUN-1992

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 07/990,860

; FILING DATE: 16-DEC-1992

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 08/053,131

; FILING DATE: 26-APR-1993

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 08/096,762

; FILING DATE: 22-JUL-1993

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 08/155,301

; FILING DATE: 18-NOV-1993

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 08/161,739

; FILING DATE: 03-DEC-1993

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 08/165,699

; FILING DATE: 10-DEC-1993

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 08/209,741

; FILING DATE: 09-MAR-1994

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 08/352,322
 ; FILING DATE: 07-DEC-1994
 ; PRIOR APPLICATION DATA:
 ; APPLICATION NUMBER: US 08/544,404
 ; FILING DATE: 10-OCT-1995
 ; PRIOR APPLICATION DATA:
 ; APPLICATION NUMBER: US 08/728,463
 ; FILING DATE: 10-OCT-1996
 ; PRIOR APPLICATION DATA:
 ; APPLICATION NUMBER: WO PCT/US96/16433
 ; FILING DATE: 10-OCT-1996
 ; PRIOR APPLICATION DATA:
 ; APPLICATION NUMBER: US 08/758,417
 ; FILING DATE: 02-DEC-1996
 ; PRIOR APPLICATION DATA:
 ; APPLICATION NUMBER: WO PCT/US97/21803
 ; FILING DATE: 01-DEC-1997
 ; ATTORNEY/AGENT INFORMATION:
 ; NAME: Apple, Randolph T.
 ; REGISTRATION NUMBER: 36,429
 ; REFERENCE/DOCKET NUMBER: 014643-009040US
 ; TELECOMMUNICATION INFORMATION:
 ; TELEPHONE: (415) 576-0200
 ; TELEFAX: (415) 576-0300
 ; INFORMATION FOR SEQ ID NO: 358:
 ; SEQUENCE CHARACTERISTICS:
 ; LENGTH: 388 base pairs
 ; TYPE: nucleic acid
 ; STRANDEDNESS: single
 ; TOPOLOGY: linear
 ; MOLECULE TYPE: DNA
 US-09-042-353-358

Query Match 87.8%; Score 368.6; DB 3; Length 388;
 Best Local Similarity 97.7%; Pred. No. 3.1e-107;
 Matches 374; Conservative 0; Mismatches 9; Indels 0; Gaps 0;

Qy	12	CATGATGGTCCCAGCTCAGCTCCTCGGTCTCCTGCTGCTCTGGTTCCCAGGTTCCAGATG	71
Db	6	CATGATGGTCCCCGCTCAGCTCCTGGGGCTCCTGCTGCTCTGGTTCCCAGGTTCCAGATG	65
Qy	72	CGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGAGTCAC	131
Db	66	CGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGAGTCAC	125
Qy	132	CATCACTTGTCTGGGCGAGTCAGGATATTAGCAGCTGGTTAGCCTGGTATCAGCATAAACC	191
Db	126	CATCACTTGTCTGGGCGAGTCAGGATATTAGCAGCTGGTTAGCCTGGTATCAGCATAAACC	185
Qy	192	AGGTAAAGCACCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGTGGTGTCCCATC	251
Db	186	AGGGAAAGCCCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGTGGGGTCCCATC	245
Qy	252	AAGGTTTCAGCGGAAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTGCAGCC	311
Db	246	AAGGTTTCAGCGGAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTGCAGCC	305

Qy 312 TGAAGATTTTGCACCTTACTATTGTCAACAGGCTAATAGTTTCCCGTACACTTTTGGTCA 371
 |||||
Db 306 TGAAGATTTTGCACCTTACTATTGTCAACAGGCTAATAGTTTCCCGTACACTTTTGGCCA 365

Qy 372 GGGAACCAAGCTGGAGATCAAAC 394
 ||| |||||
Db 366 GGGGACCAAGCTGGAGATCAAAC 388

RESULT 6

US-08-758-417A-206

; Sequence 206, Application US/08758417A

; Patent No. 6300129

; GENERAL INFORMATION:

APPLICANT: Lonberg, Nils

;

Kay, Robert M.

TITLE OF INVENTION: Transgenic No. 6300129-Human Animals for
Producing Heterologous Antibodies

; NUMBER OF SEQUENCES: 417

CORRESPONDENCE ADDRESS:

ADDRESSEE: Townsend and Townsend and Crew LLP

STREET: Two Embarcadero Center, Eighth Floor

; CITY: San Francisco

STATE: California

COUNTRY: USA

ZIP: 94111-3834

COMPUTER READABLE FORM:

```

; MEDIUM TYPE: Floppy disk

```

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

```

; SOFTWARE: PatentIn Release #1.0, Version #1.30

```

CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/08/758,417A

FILING DATE: 02-Dec-1996

; CLASSIFICATION: <Unknown>

PRIOR APPLICATION DATA:

APPLICATION NUMBER: US 08/728,463

FILING DATE: 10-OCT-1996

APPLICATION NUMBER: US 08/544,404

FILING DATE: 10-OCT-1995

APPLICATION NUMBER: US 08/352,322

FILING DATE: 07-DEC-1994

APPLICATION NUMBER: US 08/209,741

FILING DATE: 09-MAR-1994

APPLICATION NUMBER: US 08/165,699

FILING DATE: 10-DEC-1993

APPLICATION NUMBER: US 08/161,739

FILING DATE: 03-DEC-1993

APPLICATION NUMBER: US 08/155,301

FILING DATE: 18-NOV-1993

APPLICATION NUMBER: US 08/096,762

FILE NO. 100-441101-100
FILING DATE: 22-JUL-1993

APPLICATION NUMBER: US 08/053,131

APPLICATION NUMBER: 88-0
FILING DATE: 26-APR-1993

APPLICATION NUMBER: US 07/990 860

APPLICATION NUMBER: 88 9
FILING DATE: 16-DEC-1993

ATTORNEY/AGENT INFORMATION:

; NAME: Serafini, Andrew T.
 ; REGISTRATION NUMBER: 41,303
 ; REFERENCE/DOCKET NUMBER: 014643-009030US
 ; TELECOMMUNICATION INFORMATION:
 ; TELEPHONE: (415) 576-0200
 ; TELEFAX: (415) 576-0300
 ; INFORMATION FOR SEQ ID NO: 206:
 ; SEQUENCE CHARACTERISTICS:
 ; LENGTH: 388 base pairs
 ; TYPE: nucleic acid
 ; STRANDEDNESS: single
 ; TOPOLOGY: linear
 ; MOLECULE TYPE: DNA
 ; SEQUENCE DESCRIPTION: SEQ ID NO: 206:
 US-08-758-417A-206

Query Match 87.8%; Score 368.6; DB 3; Length 388;
 Best Local Similarity 97.7%; Pred. No. 3.1e-107;
 Matches 374; Conservative 0; Mismatches 9; Indels 0; Gaps 0;

Qy	12	CATGATGGTCCCAGCTCAGCTCCTCGGTCTCCTGCTGCTCTGGTTCCCAGGTTCCAGATG	71
Db	6	CATGATGGTCCCCGCTCAGCTCCTGGGGCTCCTGCTGCTCTGGTTCCCAGGTTCCAGATG	65
Qy	72	CGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGAGTCAC	131
Db	66	CGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGAGTCAC	125
Qy	132	CATCACTTGTCTGGGCGAGTCAGGATATTAGCAGCTGGTTAGCCTGGTATCAGCATAAACC	191
Db	126	CATCACTTGTCTGGGCGAGTCAGGATATTAGCAGCTGGTTAGCCTGGTATCAGCATAAACC	185
Qy	192	AGGTAAAGCACCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGTGGTGTCCTCCATC	251
Db	186	AGGGAAGCCCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGTGGGGTCCCATC	245
Qy	252	AAGGTTTCAGCGGAAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTGCAGCC	311
Db	246	AAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTGCAGCC	305
Qy	312	TGAAGATTTTGCAACTTACTATTGTCAACAGGCTAATAGTTTCCCGTACACTTTTGGTCA	371
Db	306	TGAAGATTTTGCAACTTACTATTGTCAACAGGCTAATAGTTTCCCGTACACTTTTGGCCA	365
Qy	372	GGGAACCAAGCTGGAGATCAAAC	394
Db	366	GGGGACCAAGCTGGAGATCAAAC	388

RESULT 7

US-09-042-353-360

; Sequence 360, Application US/09042353

; Patent No. 6255458

; GENERAL INFORMATION:

; APPLICANT: Lonberg, Nils

; APPLICANT: Kay, Robert M.

; TITLE OF INVENTION: Transgenic No. 6255458-Human Animals for

; TITLE OF INVENTION: Producing Heterologous Antibodies

; NUMBER OF SEQUENCES: 421

; CORRESPONDENCE ADDRESS:

; ADDRESSEE: Townsend and Townsend and Crew LLP

; STREET: Two Embarcadero Center, Eighth Floor

; CITY: San Francisco

; STATE: California

; COUNTRY: USA

; ZIP: 94111-3834

; COMPUTER READABLE FORM:

; MEDIUM TYPE: Floppy disk

; COMPUTER: IBM PC compatible

; OPERATING SYSTEM: PC-DOS/MS-DOS

; SOFTWARE: PatentIn Release #1.0, Version #1.30

; CURRENT APPLICATION DATA:

; APPLICATION NUMBER: US/09/042,353

; FILING DATE: 13-MAR-1998

; CLASSIFICATION: 800

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 07/810,279

; FILING DATE: 17-DEC-1991

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 07/853,408

; FILING DATE: 18-MAR-1992

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 07/904,068

; FILING DATE: 23-JUN-1992

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 07/990,860

; FILING DATE: 16-DEC-1992

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 08/053,131

; FILING DATE: 26-APR-1993

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 08/096,762

; FILING DATE: 22-JUL-1993

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 08/155,301

; FILING DATE: 18-NOV-1993

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 08/161,739

; FILING DATE: 03-DEC-1993

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 08/165,699

; FILING DATE: 10-DEC-1993

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 08/209,741

; FILING DATE: 09-MAR-1994

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 08/352,322

; FILING DATE: 07-DEC-1994

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 08/544,404

; FILING DATE: 10-OCT-1995

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 08/728,463

; FILING DATE: 10-OCT-1996

RESULT 8

US-08-758-417A-208

; Sequence 208, Application US/08758417A

; Patent No. 6300129

; GENERAL INFORMATION:

; APPLICANT: Lonberg, Nils

; Kay, Robert M.

; TITLE OF INVENTION: Transgenic No. 6300129-Human Animals for
; Producing Heterologous Antibodies

; NUMBER OF SEQUENCES: 417

; CORRESPONDENCE ADDRESS:

; ADDRESSEE: Townsend and Townsend and Crew LLP

; STREET: Two Embarcadero Center, Eighth Floor

; CITY: San Francisco

; STATE: California

; COUNTRY: USA

; ZIP: 94111-3834

; COMPUTER READABLE FORM:

; MEDIUM TYPE: Floppy disk

; COMPUTER: IBM PC compatible

; OPERATING SYSTEM: PC-DOS/MS-DOS

; SOFTWARE: PatentIn Release #1.0, Version #1.30

; CURRENT APPLICATION DATA:

; APPLICATION NUMBER: US/08/758,417A

; FILING DATE: 02-Dec-1996

; CLASSIFICATION: <Unknown>

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 08/728,463

; FILING DATE: 10-OCT-1996

; APPLICATION NUMBER: US 08/544,404

; FILING DATE: 10-OCT-1995

; APPLICATION NUMBER: US 08/352,322

; FILING DATE: 07-DEC-1994

; APPLICATION NUMBER: US 08/209,741

; FILING DATE: 09-MAR-1994

; APPLICATION NUMBER: US 08/165,699

; FILING DATE: 10-DEC-1993

; APPLICATION NUMBER: US 08/161,739

; FILING DATE: 03-DEC-1993

; APPLICATION NUMBER: US 08/155,301

; FILING DATE: 18-NOV-1993

; APPLICATION NUMBER: US 08/096,762

; FILING DATE: 22-JUL-1993

; APPLICATION NUMBER: US 08/053,131

; FILING DATE: 26-APR-1993

; APPLICATION NUMBER: US 07/990,860

; FILING DATE: 16-DEC-1992

; ATTORNEY/AGENT INFORMATION:

; NAME: Serafini, Andrew T.

; REGISTRATION NUMBER: 41,303

; REFERENCE/DOCKET NUMBER: 014643-009030US

; TELECOMMUNICATION INFORMATION:

; TELEPHONE: (415) 576-0200

; TELEFAX: (415) 576-0300

; INFORMATION FOR SEQ ID NO: 208:

; SEQUENCE CHARACTERISTICS:

```

;          LENGTH: 439 base pairs
;          TYPE: nucleic acid
;          STRANDEDNESS: single
;          TOPOLOGY: linear
;          MOLECULE TYPE: DNA
;          SEQUENCE DESCRIPTION: SEQ ID NO: 208:
US-08-758-417A-208

```

```

Query Match          85.2%;   Score 357.8;   DB 3;   Length 439;
Best Local Similarity 92.2%;   Pred. No. 8.7e-104;
Matches 377;   Conservative 0;   Mismatches 32;   Indels 0;   Gaps 0;

```

```

Qy      12 CATGATGGTCCCAGCTCAGCTCCTCGGTCTCCTGCTGCTCTGGTTCCCAGGTTCCAGATG 71
      |||| | |||| | ||||| || ||||| ||||| ||||| ||||| ||||| |||||
Db      6 CATGGAGTTCCCCGTTCCAGCTCCTGGGGCTCCTGCTGCTCTGTTTCCCAGGTGCCAGATG 65

Qy      72 CGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGAGTCAC 131
      ||||| ||||| ||||| ||||| || ||||| ||||| ||||| ||||| |||||
Db      66 TGACATCCAGATGACCCAGTCTCCATCCTCACTGTCTGCATCTGTAGGAGACAGAGTCAC 125

Qy     132 CATCACTTGTCGGGCGAGTCAGGATATTAGCAGCTGGTTAGCCTGGTATCAGCATAAACC 191
      ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db     126 CATCACTTGTCGGGCGAGTCAGGATATTAGCAGCTGGTTAGCCTGGTATCAGCAGAAACC 185

Qy     192 AGGTAAAGCACCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGTGGTGTCCCATC 251
      || ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db     186 AGAGAAAGCCCCCTAAGTCCCTGATCTATTCTGCATCCAGTTTGCAAAGTGGGGTCCCATC 245

Qy     252 AAGGTTTCAGCGGAAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTGCAGCC 311
      ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db     246 AAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTGCAGCC 305

Qy     312 TGAAGATTTTGCAACTTACTATTGTCAACAGGCTAATAGTTTCCCGTACACTTTTGGTCA 371
      ||||| ||||| ||||| || || ||||| || ||||| ||||| ||||| |||||
Db     306 TGAAGATTTTGCAACTTATTACTGCCAACAGTATGATAGTTACCCGTACACTTTTGGCCA 365

Qy     372 GGGAACCAAGCTGGAGATCAAACGAACTGTGGCTGCACCATCTGTCTTC 420
      ||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db     366 GGGGACCAAGCTGGAGATCAAACGAACTGTGGCTGCACCATCTGTCTTC 414

```

RESULT 9

US-09-472-087-62

; Sequence 62, Application US/09472087

; Patent No. 6682736

GENERAL INFORMATION:

; APPLICANT: HANSON, DOUGLAS C.

; APPLICANT: NEVEU, MARK J.

; APPLICANT: MUELLER, EILLEN E.

; APPLICANT: HANKE, JEFFREY H.

; APPLICANT: GILMAN, STEVEN C.

; APPLICANT: DAVIS, C. GEOFFREY

; APPLICANT: CORVALAN, JOSE R.

; TITLE OF INVENTION: HUMAN MONOCLONAL ANTIBODIES TO CTLA-4

; FILE REFERENCE: ABX-PF1

; CURRENT APPLICATION NUMBER: US/09/472,087

; CURRENT FILING DATE: 1999-12-23

; PRIOR APPLICATION NUMBER: 60/113,647
; PRIOR FILING DATE: 1998-12-23
; NUMBER OF SEQ ID NOS: 147
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 62
; LENGTH: 714
; TYPE: DNA
; ORGANISM: Homo sapiens
US-09-472-087-62

Query Match 79.1%; Score 332.2; DB 4; Length 714;
Best Local Similarity 88.3%; Pred. No. 1.4e-95;
Matches 361; Conservative 0; Mismatches 48; Indels 0; Gaps 0;

```
Qy      12 CATGATGGTCCCAGCTCAGCTCCTCGGTCTCCTGCTGCTCTGGTTCCCAGGTTCAGATG 71
      ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db      6 CATGAGGGTCCCCGCTCAGCTCCTGGGGCTCCTGCTACTCTGGCTCCGAGGTGCCAGATG 65

Qy      72 CGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGAGTCAC 131
      ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db      66 TGACATCCAGATGACCCAGTCTCCATCCTCCTGTCTGCATCTGTAGGAGACAGAGTCAC 125

Qy     132 CATCACTTGTCTGGGCGAGTCAGGATATTAGCAGCTGGTTAGCCTGGTATCAGCATAAACC 191
      ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db     126 CATCACTTGCCGGGCAAGTCAGAGCATTAACAGCTATTTAGATTGGTATCAGCAGAAACC 185

Qy     192 AGGTAAAGCACCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGTGGTGTCCCATC 251
      ||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db     186 AGGGAAAGCCCCATAAATCCTGATCTATGCTGCATCCAGTTTGCAAAGTGGGGTCCCATC 245

Qy     252 AAGGTTACGCGGAAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTGCAGCC 311
      ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db     246 AAGGTTACAGTGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGTCTGCAACC 305

Qy     312 TGAAGATTTTGCAACTTACTATTGTCAACAGGCTAATAGTTTCCCGTACACTTTTGGTCA 371
      ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db     306 TGAAGATTTTGCAACTTACTACTGTCAACAGTATTACAGTACTCCATTCACTTTCCGGCCC 365

Qy     372 GGGAACCAAGCTGGAGATCAAACGAACTGTGGCTGCACCATCTGTCTTC 420
      || ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db     366 TGGGACCAAAGTGGAATCAAACGAACTGTGGCTGCACCATCTGTCTTC 414
```

RESULT 10

US-08-157-101A-4

; Sequence 4, Application US/08157101A
; Patent No. 5808032

; GENERAL INFORMATION:

; APPLICANT: KURIHARA, TATSUYA
; APPLICANT: MATSUKURA, SHIGEKAZU
; APPLICANT: TSURUOKA, NOBUO
; APPLICANT: ARIMA, KENJI
; APPLICANT: NISHIHARA, TATSURO
; TITLE OF INVENTION: ANTI-HBs ANTIBODY GENES AND EXPRESSION
; TITLE OF INVENTION: PLASMIDS THEREFOR
; NUMBER OF SEQUENCES: 9
; CORRESPONDENCE ADDRESS:

[illegible]

Qy 252 AAGGTTTCAGCGGAAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTGCAGCC 311
 |||
 Db 7790 AAGGTTTCAGCGGCAGTGGATCTGGGACAGAGTTCACTCTCACCGTCAGCAGCCTGCAGCC 7849
 Qy 312 TGAAGATTTTGCAACTTACTATTGTCAACAGGCTAATAGTTTCCCGTACACTTTTGGTCA 371
 |||
 Db 7850 TGAAGATTTTGCGACTTATTACTGTCTACAGGTTTATAGTACCCCTCGGACGTTTCGGCCA 7909
 Qy 372 GGGAACCAAGCTGGAGATCAAACGAAGTGTGGCTGCACCATCTGTCTTC 420
 |||
 Db 7910 AGGGACCAAGGTGGAAATCAAACGTACGGTGGCTGCACCATCTGTCTTC 7958

RESULT 12

US-08-259-372A-13

; Sequence 13, Application US/08259372A

; Patent No. 5565354

; GENERAL INFORMATION:

; APPLICANT: Ostberg, Lars G.

; TITLE OF INVENTION: PRODUCTION OF HUMAN MONOCLONAL

; TITLE OF INVENTION: ANTIBODIES SPECIFIC FOR HEPATITIS B SURFACE ANTIGEN

; NUMBER OF SEQUENCES: 16

; CORRESPONDENCE ADDRESS:

; ADDRESSEE: Townsend and Townsend and Crew LLP

; STREET: Two Embarcadero Center, Eighth Floor

; CITY: San Francisco

; STATE: CA

; COUNTRY: USA

; ZIP: 94111-3834

; COMPUTER READABLE FORM:

; MEDIUM TYPE: Floppy disk

; COMPUTER: IBM PC compatible

; OPERATING SYSTEM: PC-DOS/MS-DOS

; SOFTWARE: PatentIn Release #1.0, Version #1.30

; CURRENT APPLICATION DATA:

; APPLICATION NUMBER: US/08/259,372A

; FILING DATE: 14-JUN-1994

; CLASSIFICATION: 424

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 07/871,426

; FILING DATE: 21-APR-1992

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 07/676,036

; FILING DATE: 27-MAR-1991

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 07/538,796

; FILING DATE: 15-JUN-1990

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 07/192,754

; FILING DATE: 11-MAY-1988

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 06/925,196

; FILING DATE: 31-OCT-1986

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 06/904,517

; FILING DATE: 05-SEP-1986

; ATTORNEY/AGENT INFORMATION:

RESULT 13

US-08-468-671-13

; Sequence 13, Application US/08468671

; Patent No. 5648077

; GENERAL INFORMATION:

; APPLICANT: Ostberg, Lars G.

; TITLE OF INVENTION: PRODUCTION OF HUMAN MONOCLONAL

; TITLE OF INVENTION: ANTIBODIES SPECIFIC FOR HEPATITIS B SURFACE ANTIGEN

; NUMBER OF SEQUENCES: 16

; CORRESPONDENCE ADDRESS:

; ADDRESSEE: Townsend and Townsend and Crew LLP

; STREET: Two Embarcadero Center, Eighth Floor

; CITY: San Francisco

; STATE: CA

; COUNTRY: USA

; ZIP: 94111-3834

; COMPUTER READABLE FORM:

; MEDIUM TYPE: Floppy disk

; COMPUTER: IBM PC compatible

; OPERATING SYSTEM: PC-DOS/MS-DOS

; SOFTWARE: PatentIn Release #1.0, Version #1.30

; CURRENT APPLICATION DATA:

; APPLICATION NUMBER: US/08/468,671

; FILING DATE: 06-JUN-1995

; CLASSIFICATION: 424

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 08/259,372

; FILING DATE: 14-JUN-1994

; APPLICATION NUMBER: US 07/871,426

; FILING DATE: 21-APR-1992

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 07/676,036

; FILING DATE: 27-MAR-1991

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 07/538,796

; FILING DATE: 15-JUN-1990

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 07/192,754

; FILING DATE: 11-MAY-1988

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 06/925,196

; FILING DATE: 31-OCT-1986

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 06/904,517

; FILING DATE: 05-SEP-1986

; ATTORNEY/AGENT INFORMATION:

; NAME: Smith, William M.

; REGISTRATION NUMBER: 30,223

; REFERENCE/DOCKET NUMBER: 11823-50-7

; TELECOMMUNICATION INFORMATION:

; TELEPHONE: (415) 326-2400

; TELEFAX: (415) 576-0300

; INFORMATION FOR SEQ ID NO: 13:

; SEQUENCE CHARACTERISTICS:

; LENGTH: 384 base pairs

; TYPE: nucleic acid

; STRANDEDNESS: unknown

US-08-468-671-13

[illegible]

; TITLE OF INVENTION: Against Human Cytokines And

```

; TITLE OF INVENTION:  Methods Of Making And Using Such Antibodies
; NUMBER OF SEQUENCES:  30
; CORRESPONDENCE ADDRESS:
;   ADDRESSEE:  Schering-Plough Corporation
;   STREET:  2000 Galloping Hill Road
;   CITY:  Kenilworth
;   STATE:  New Jersey
;   COUNTRY:  USA
;   ZIP:  07033
; COMPUTER READABLE FORM:
;   MEDIUM TYPE:  Floppy disk
;   COMPUTER:  Apple Macintosh
;   OPERATING SYSTEM:  Macintosh 7.5.3
;   SOFTWARE:  Microsoft Word 5.1a
; CURRENT APPLICATION DATA:
;   APPLICATION NUMBER:  US/08/646,367
;   FILING DATE:  May 16, 1996
;   CLASSIFICATION:  530
; ATTORNEY/AGENT INFORMATION:
;   NAME:  Foulke, Cynthia L.
;   REGISTRATION NUMBER:  32,364
;   REFERENCE/DOCKET NUMBER:  SF0403K
; TELECOMMUNICATION INFORMATION:
;   TELEPHONE:  908-298-2987
;   TELEFAX:  908-298-5388
; INFORMATION FOR SEQ ID NO:  2:
;   SEQUENCE CHARACTERISTICS:
;   LENGTH:  390 base pairs
;   TYPE:  nucleic acid
;   STRANDEDNESS:  double
;   TOPOLOGY:  linear
US-08-646-367-2

```

```

Query Match          76.0%;  Score 319.4;  DB 2;  Length 390;
Best Local Similarity 89.4%;  Pred. No. 1.2e-91;
Matches 344;  Conservative 0;  Mismatches 41;  Indels 0;  Gaps 0;

```

```

Qy      12 CATGATGGTCCCAGCTCAGCTCCTCGGTCTCCTGCTGCTCTGGTTCCCAGGTTCCAGATG 71
        ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db      6 CATGAGGGTCCCCGCTCAGCTCCTGGGGCTCCTGCTGCTCTGGTTCCCAGGTTCCAGATG 65

Qy      72 CGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGAGTCAC 131
        ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db      66 CGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGAGTCAC 125

Qy      132 CATCACTTGTCGGGCGAGTCAGGATATTAGCAGCTGGTTAGCCTGGTATCAGCATAAACC 191
        ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db      126 CATCACTTGTCGGGCGAGTCAGGGTATTAGCAGTTGGTTAGCCTGGTATCAGCAGAAACC 185

Qy      192 AGGTAAAGCACCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGTGGTGTCCCATC 251
        ||| || || || || ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db      186 AGGAAAGGCCCGAAGCTCTTGATCTATGAAGCATCCAATTTGGAAACTGGGGTCCCATC 245

Qy      252 AAGGTTTCAGCGGAAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTGCAGCC 311
        ||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db      246 AAGATTTCAGCGGCAGTGGATCTGGGTGAGATTTCACCCTCACCATCAGCAGCCTGCAGCC 305

```

Qy 312 TGAAGATTTTGCACCTTACTATTGTCAACAGGCTAATAGTTTCCTCAGTCTCGGCCG 371
| | | | | | | | | | | | | | | | | | | | | |
Db 306 TGAAGATTTTGCACCTTATTATTGTCAACAGACTTAGCAGTTTTCTCTCAGTCTCGGCCG 365

Qy 372 GGGAACCAAGCTGGAGATCAAACGA 396
|| ||||||| |||||||
Db 366 CGGGACCAAGGTGGAGCACAAACGA 390

RESULT 15

US-08-488-376-16

; Sequence 16, Application US/08488376

; Patent No. 5811524

; GENERAL INFORMATION:

; APPLICANT: BRAMS, Peter

APPLICANT: CHAMAT, Soulaïma Salim

; APPLICANT: PAN, Li-Zhen

APPLICANT: WALSH, Edward E.

; APPLICANT: HEARD, Cheryl Janne

APPLICANT: NEWMAN, Roland Anthony

; TITLE OF INVENTION: NEUTRALIZING HIGH AFFINITY HUMAN

7 TITLE OF INVENTION: MONOCLONAL ANTIBODIES SPECIFIC TO RSV F-PROTEIN AND

TITLE OF INVENTION: METHODS FOR THEIR MANUFACTURE AND THERAPEUTIC USE

THEREOF

; NUMBER OF SEQUENCES: 19

; CORRESPONDENCE ADDRESS:

ADDRESSEE: Burns, Doane, Swecker & Mathis

STREET: P.O. Box 1404

; CITY: Alexandria

; STATE: Virginia

; COUNTRY: United States

; ZIP: 22313-1404

; COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

```

;      OPERATING SYSTEM:  PC-DOS/MS-DOS

```

```
; SOFTWARE: PatentIn Release #1.0, Version #1.30
```

```
; CURRENT APPLICATION DATA:
```

; APPLICATION NUMBER: US/08/488,376

; FILING DATE: 07-JUN-1995

CLASSIFICATION: 424

; ATTORNEY/AGENT INFORMATION:

NAME: Teskin, Robin L.

REGISTRATION NUMBER: 35,030

REFERENCE/DOCKET NUMBER: 012712-150

; TELECOMMUNICATION INFORMATION:

TELEPHONE: (703) 836-6620

; TELEFAX: (703) 836-2021

; INFORMATION FOR SEQ ID NO: 16:

; SEQUENCE CHARACTERISTICS:

; LENGTH: 705 base pairs

; TYPE: nucleic acid

```
; STRANDEDNESS: single
```

; TOPOLOGY: linear

; MOLECULE TYPE: DNA (genomic)

; FEATURE:

; NAME/KEY: CDS

; LOCATION: 1..705
US-08-488-376-16

Query Match 73.5%; Score 308.8; DB 1; Length 705;
Best Local Similarity 84.8%; Pred. No. 3.5e-88;
Matches 346; Conservative 0; Mismatches 62; Indels 0; Gaps 0;

```
Qy      13 ATGATGGTCCCAGCTCAGCTCCTCGGTCTCCTGCTGCTCTGGTTCCCAGGTTCCAGATGC 72
      ||| | ||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db      1 ATGGAGACCCCTGCTCAGCTCCTGGGGCTCCTGCTACTCTGGCTCCGAGGTGCCAGATGT 60

Qy      73 GACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGAGTCACC 132
      ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db      61 GACATCCAGATGACCCAGTCTCCATCCTCCCTGTCTGCATCTGTCTGGAGACAGAGTCACC 120

Qy     133 ATCACTTGTCGGGCGAGTCAGGATATTAGCAGCTGGTTAGCCTGGTATCAGCATAAACCA 192
      ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db     121 ATCACTTGCCGGGCAGGTCAGAGGATTGCTAGTTATTTAAATTGGTATCAGCACAAACCA 180

Qy     193 GGTAAAGCACCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGTGGTGTCCCATCA 252
      || ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db     181 GGGAAAGCCCCTAAGCTCCTGATATATGCTGGATCCAATTTGCACCGTGGGGTCCCGTCA 240

Qy     253 AGGTTTCAGCGGAAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTGCAGCCT 312
      ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db     241 AGGTTTCAGTGGCGGTGGATCTGGGACAGATTTCACTCTCACCATCAACAGTCTGCAACCT 300

Qy     313 GAAGATTTTGCAACTTACTATTGTCAACAGGCTAATAGTTTCCCGTACACTTTTGGTCAG 372
      ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db     301 GAAGATTTTGCAACTTACTATTGTCAACAGGCTTACAGTACCCCTGGACTTTCGGCCCA 360

Qy     373 GGAACCAAGCTGGAGATCAAACGAACTGTGGCTGCACCATCTGTCTTC 420
      || ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db     361 GGGACCAAGGTGGAAATCAAACGTACGGTGGCTGCACCATCTGTCTTC 408
```

Search completed: December 2, 2004, 17:07:49
Job time : 62.3429 secs

GenCore version 5.1.6
Copyright (c) 1993 - 2004 Compugen Ltd.

OM nucleic - nucleic search, using sw model

Run on: December 2, 2004, 17:01:26 ; Search time 322.011 Seconds
(without alignments)
7166.911 Million cell updates/sec

Title: US-08-728-463B-220
Perfect score: 420
Sequence: 1 AAGCTTGCCACCATGATGGT.....TGGCTGCACCATCTGTCTTC 420

Scoring table: IDENTITY_NUC
Gapop 10.0 , Gapext 1.0

Searched: 3694831 seqs, 2747406616 residues

Total number of hits satisfying chosen parameters: 7389662

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database :

Published_Applications_NA:*

- 1: /cgn2_6/ptodata/1/pubpna/US07_PUBCOMB.seq:*
- 2: /cgn2_6/ptodata/1/pubpna/PCT_NEW_PUB.seq:*
- 3: /cgn2_6/ptodata/1/pubpna/US06_NEW_PUB.seq:*
- 4: /cgn2_6/ptodata/1/pubpna/US06_PUBCOMB.seq:*
- 5: /cgn2_6/ptodata/1/pubpna/US07_NEW_PUB.seq:*
- 6: /cgn2_6/ptodata/1/pubpna/PCTUS_PUBCOMB.seq:*
- 7: /cgn2_6/ptodata/1/pubpna/US08_NEW_PUB.seq:*
- 8: /cgn2_6/ptodata/1/pubpna/US08_PUBCOMB.seq:*
- 9: /cgn2_6/ptodata/1/pubpna/US09A_PUBCOMB.seq:*
- 10: /cgn2_6/ptodata/1/pubpna/US09B_PUBCOMB.seq:*
- 11: /cgn2_6/ptodata/1/pubpna/US09C_PUBCOMB.seq:*
- 12: /cgn2_6/ptodata/1/pubpna/US09_NEW_PUB.seq:*
- 13: /cgn2_6/ptodata/1/pubpna/US10A_PUBCOMB.seq:*
- 14: /cgn2_6/ptodata/1/pubpna/US10B_PUBCOMB.seq:*
- 15: /cgn2_6/ptodata/1/pubpna/US10C_PUBCOMB.seq:*
- 16: /cgn2_6/ptodata/1/pubpna/US10D_PUBCOMB.seq:*
- 17: /cgn2_6/ptodata/1/pubpna/US10E_PUBCOMB.seq:*
- 18: /cgn2_6/ptodata/1/pubpna/US10_NEW_PUB.seq:*
- 19: /cgn2_6/ptodata/1/pubpna/US11_NEW_PUB.seq:*
- 20: /cgn2_6/ptodata/1/pubpna/US60_NEW_PUB.seq:*
- 21: /cgn2_6/ptodata/1/pubpna/US60_PUBCOMB.seq:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result			%		Query		Description
	No.	Score	Match	Length	ID		
	1	370.6	88.2	974	9	US-09-859-053-29	Sequence 29, Appl
	2	370.6	88.2	974	17	US-10-625-105-29	Sequence 29, Appl
	3	365.8	87.1	728	9	US-09-844-684-15	Sequence 15, Appl
	4	365.8	87.1	728	14	US-10-040-244-15	Sequence 15, Appl
	5	365.8	87.1	728	17	US-10-693-629-65	Sequence 65, Appl
	6	362.6	86.3	716	9	US-09-844-684-13	Sequence 13, Appl
	7	362.6	86.3	716	14	US-10-040-244-13	Sequence 13, Appl
	8	361.6	86.1	705	15	US-10-292-088-23	Sequence 23, Appl
	9	361.6	86.1	705	15	US-10-292-088-47	Sequence 47, Appl
	10	361.6	86.1	752	17	US-10-684-109-83	Sequence 83, Appl
c	11	361.6	86.1	752	17	US-10-684-109-84	Sequence 84, Appl
	12	346.4	82.5	463	16	US-10-395-894-24	Sequence 24, Appl
	13	346.4	82.5	463	17	US-10-695-667-24	Sequence 24, Appl
	14	346.4	82.5	6082	16	US-10-395-894-10	Sequence 10, Appl
	15	346.4	82.5	6082	17	US-10-695-667-10	Sequence 10, Appl

	16	344	81.9	702	17	US-10-684-109-107	Sequence 107, App
c	17	344	81.9	702	17	US-10-684-109-108	Sequence 108, App
	18	342.4	81.5	702	17	US-10-684-109-89	Sequence 89, Appl
c	19	342.4	81.5	702	17	US-10-684-109-90	Sequence 90, Appl
	20	338.6	80.6	1106	16	US-10-264-049-121	Sequence 121, App
	21	338.4	80.6	463	16	US-10-395-894-20	Sequence 20, Appl
	22	338.4	80.6	463	17	US-10-695-667-20	Sequence 20, Appl
	23	338.4	80.6	6082	16	US-10-395-894-9	Sequence 9, Appli
	24	338.4	80.6	6082	17	US-10-695-667-9	Sequence 9, Appli
	25	336	80.0	702	17	US-10-684-109-101	Sequence 101, App
c	26	336	80.0	702	17	US-10-684-109-102	Sequence 102, App
	27	335.2	79.8	729	15	US-10-216-484-125	Sequence 125, App
	28	335.2	79.8	729	15	US-10-384-933-125	Sequence 125, App
	29	334.4	79.6	702	17	US-10-684-109-113	Sequence 113, App
c	30	334.4	79.6	702	17	US-10-684-109-114	Sequence 114, App
	31	332.8	79.2	702	17	US-10-684-109-95	Sequence 95, Appl
c	32	332.8	79.2	702	17	US-10-684-109-96	Sequence 96, Appl
	33	332.2	79.1	714	14	US-10-153-382-18	Sequence 18, Appl
	34	332.2	79.1	714	18	US-10-612-497-62	Sequence 62, Appl
	35	332.2	79.1	714	18	US-10-776-649-62	Sequence 62, Appl
	36	330.6	78.7	490	10	US-09-918-995-37859	Sequence 37859, A
	37	328	78.1	381	16	US-10-309-762-111	Sequence 111, App
	38	326.6	77.8	591	16	US-10-264-049-2157	Sequence 2157, Ap
	39	325.8	77.6	19040	17	US-10-817-950-3	Sequence 3, Appli
	40	324.2	77.2	514	14	US-10-066-543-2025	Sequence 2025, Ap
c	41	324.2	77.2	537	14	US-10-066-543-186	Sequence 186, App
	42	324.2	77.2	698	9	US-09-844-684-11	Sequence 11, Appl
	43	324.2	77.2	698	14	US-10-040-244-11	Sequence 11, Appl
	44	324.2	77.2	698	17	US-10-693-629-61	Sequence 61, Appl
	45	323.2	77.0	384	15	US-10-389-221-10	Sequence 10, Appl

ALIGNMENTS

RESULT 1

US-09-859-053-29

; Sequence 29, Application US/09859053

; Patent No. US20020102658A1

; GENERAL INFORMATION:

; APPLICANT: Tsuji, Takashi

; APPLICANT: Tezuka, Katsunari

; APPLICANT: Hori, No. US20020102658A1uaki

; TITLE OF INVENTION: HUMAN MONOCLONAL ANTIBODY AGAINST A

; TITLE OF INVENTION: COSTIMULATORY SIGNAL TRANSDUCTION MOLECULE AILIM AND

; TITLE OF INVENTION: PHARMACEUTICAL USE THEREOF

; FILE REFERENCE: 06501-079001

; CURRENT APPLICATION NUMBER: US/09/859,053

; CURRENT FILING DATE: 2001-05-16

; PRIOR APPLICATION NUMBER: JP 2001-99508

; PRIOR FILING DATE: 2001-03-30

; PRIOR APPLICATION NUMBER: JP 2000-147116

; PRIOR FILING DATE: 2000-05-18

; NUMBER OF SEQ ID NOS: 43

; SOFTWARE: FastSEQ for Windows Version 4.0

; SEQ ID NO 29

; LENGTH: 974

```

; TYPE: DNA
; ORGANISM: Homo sapiens
; FEATURE:
; NAME/KEY: 5'UTR
; LOCATION: (1)...(38)
; NAME/KEY: CDS
; LOCATION: (39)...(746)
; NAME/KEY: 3'UTR
; LOCATION: (750)...(974)
; NAME/KEY: sig_peptide
; LOCATION: (39)...(104)
US-09-859-053-29

```

```

Query Match          88.2%; Score 370.6; DB 9; Length 974;
Best Local Similarity 94.1%; Pred. No. 2e-108;
Matches 385; Conservative 0; Mismatches 24; Indels 0; Gaps 0;

```

```

Qy      12 CATGATGGTCCCAGCTCAGCTCCTCGGTCTCCTGCTGCTCTGGTTCCCAGGTTCCAGATG 71
      ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db      44 CATGAGGGTCCCCGCTCAGCTCCTGGGGCTCCTGCTGCTCTGGTTCCCAGGTTCCAGATG 103

Qy      72 CGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGAGTCAC 131
      ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db     104 CGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGAGTCAC 163

Qy     132 CATCACTTGTCGGGCGAGTCAGGATATTAGCAGCTGGTTAGCCTGGTATCAGCATAAACC 191
      ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db     164 CATCACTTGTCGGGCGAGTCAGGATATTAGCAGGTTGTTAGCCTGGTATCAGCAGAAACC 223

Qy     192 AGGTAAAGCACCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGTGGTGTCCCATC 251
      ||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db     224 AGGGAAAGCCCCCTAAACTCCTGATCTATGTTGCATCCAGTTTGCAAAGTGGGGTCCCATC 283

Qy     252 AAGGTTTCAGCGGAAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTGCAGCC 311
      ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db     284 AAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTGCAGCC 343

Qy     312 TGAAGATTTTGCAACTTACTATTGTCAACAGGCTAATAGTTTCCCGTACACTTTTGGTCA 371
      ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db     344 TGAAGATTTTGCAACTTACTATTGTCAACAGGCTAACAGTTTCCCGTGGACGTTTCGGCCA 403

Qy     372 GGGAACCAAGCTGGAGATCAAACGAACTGTGGCTGCACCATCTGTCTTC 420
      || ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db     404 AGGGACCAAGGTGGAAATCAAACGAACTGTGGCTGCACCATCTGTCTTC 452

```

RESULT 2

US-10-625-105-29

```

; Sequence 29, Application US/10625105
; Publication No. US20040180052A1
; GENERAL INFORMATION:
; APPLICANT: Tsuji, Takashi
; APPLICANT: Tezuka, Katsunari
; APPLICANT: Hori, Nobuaki
; TITLE OF INVENTION: HUMAN MONOCLONAL ANTIBODY AGAINST A
; TITLE OF INVENTION: COSTIMULATORY SIGNAL TRANSDUCTION MOLECULE AILIM AND
; TITLE OF INVENTION: PHARMACEUTICAL USE THEREOF

```

```

; FILE REFERENCE: 06501-079001
; CURRENT APPLICATION NUMBER: US/10/625,105
; CURRENT FILING DATE: 2003-07-22
; PRIOR APPLICATION NUMBER: US/09/859,053
; PRIOR FILING DATE: 2001-05-16
; PRIOR APPLICATION NUMBER: JP 2001-99508
; PRIOR FILING DATE: 2001-03-30
; PRIOR APPLICATION NUMBER: JP 2000-147116
; PRIOR FILING DATE: 2000-05-18
; NUMBER OF SEQ ID NOS: 43
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 29
;   LENGTH: 974
;   TYPE: DNA
;   ORGANISM: Homo sapiens
;   FEATURE:
;   NAME/KEY: 5'UTR
;   LOCATION: (1)...(38)
;   FEATURE:
;   NAME/KEY: CDS
;   LOCATION: (39)...(746)
;   FEATURE:
;   NAME/KEY: 3'UTR
;   LOCATION: (750)...(974)
;   FEATURE:
;   NAME/KEY: sig_peptide
;   LOCATION: (39)...(104)
US-10-625-105-29

```

```

Query Match          88.2%;  Score 370.6;  DB 17;  Length 974;
Best Local Similarity 94.1%;  Pred. No. 2e-108;
Matches 385;  Conservative 0;  Mismatches 24;  Indels 0;  Gaps 0;

```

```

Qy      12  CATGATGGTCCCGAGCTCAGCTCCTCGGTCTCCTGCTGCTCTGGTTCCTCCAGGTTCCAGATG 71
        ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db      44  CATGAGGGTCCCCGCTCAGCTCCTGGGGCTCCTGCTGCTCTGGTTCCTCCAGGTTCCAGATG 103

Qy      72  CGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGAGTCAC 131
        ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db      104 CGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGAGTCAC 163

Qy     132  CATCACTTGTTCGGGCGAGTCAGGATATTAGCAGCTGGTTAGCCTGGTATCAGCATAAACC 191
        ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db     164  CATCACTTGTTCGGGCGAGTCAGGATATTAGCAGGTTGTTAGCCTGGTATCAGCAGAAACC 223

Qy     192  AGGTAAAGCACCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGTGGTGTCCCATC 251
        ||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db     224  AGGGAAAGCCCCTAAACTCCTGATCTATGTTGCATCCAGTTTGCAAAGTGGGGTCCCATC 283

Qy     252  AAGGTTTCAGCGGAAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTGCAGCC 311
        ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db     284  AAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTGCAGCC 343

Qy     312  TGAAGATTTTGCAACTTACTATTGTCAACAGGCTAATAGTTTCCCGTACACTTTTGGTCA 371
        ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db     344  TGAAGATTTTGCAACTTACTATTGTCAACAGGCTAACAGTTTCCCGTGGACGTTTCGGCCA 403

```

Qy 372 GGGAAACCAAGCTGGAGATCAAACGAACTGTGGCTGCACCATCTGTCTTC 420
 |||||
Db 404 AGGGACCAAGGTGGAATCAAACGAACTGTGGCTGCACCATCTGTCTTC 452

RESULT 3

US-09-844-684-15

; Sequence 15, Application US/09844684

: Patent No. US20020142358A1

: GENERAL INFORMATION:

APPLICANT: GEMINI SCIENCE, INC.

APPLICANT: LA JOLLA INSTITUTE FOR ALLERGY AND IMMUNOLOGY

TITLE OF INVENTION: HUMAN ANTI-CD40 ANTIBODIES AND METHODS OF MAKING SAME

FILE REFERENCE: 21286/0276339

; CURRENT APPLICATION NUMBER: US/09/844,684

; CURRENT FILING DATE: 2001-04-27

; PRIOR APPLICATION NUMBER: US 60/200,601

: PRIOR FILING DATE: 2000-04-28

```
; NUMBER OF SEQ ID NOS: 15
```

```

; SOFTWARE: PatentIn Ver. 2.1

```

; SEQ ID NO 15

; LENGTH: 728

TYPE: DNA

; ORGANISM: Homo sapiens

US-09-844-684-15

Query Match 87.1%; Score 365.8; DB 9; Length 728;
Best Local Similarity 93.4%; Pred. No. 6.4e-107;
Matches 382; Conservative 0; Mismatches 27; Indels 0; Gaps 0;

[illegible]

Qy 72 CGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGAGTCAC 131
|||||
Db 124 CGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGGATCTGTAGGAGACAGAGTCAC 183

Qy 132 CATCACTTGTCTGGGCGAGTCAGGATATTAGCAGCTGGTTAGCCTGGTATCAGCATAAACC 191
 |||
 Db 184 CATCACTTGTCTGGGCGAGTCAGGATATTAGCAGCTGGTTAGCCTGGTATCAGCAGAAACC 243

Qy 192 AGGTAAAGCACCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGTGGTGTCCCATC 251
 ||| | | | | | | | | | | | | | | | | | | | | | | | | | | |
Db 244 AGGGAAAGCCCCAAGCTCCTGATCTATGCTGGATCCAGTTTGCAAAGTGGGGTCCCATC 303

Qy 252 AAGGTT CAGCGGAAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTGCAGCC 311
 |||
 Db 304 AAGGTT CAGCGGCAGTGGATTTGGGACAGATTTCACTCTCACCATCAGCAGCCTGCAGCC 363

Qy 312 TGAAGATTTTGCACCTTACTATTGTCAACAGGCTAATAGTTTCCCGTACACTTTTGGTCA 371
 |||
 Db 364 TGAAGATTTTGCACCTTACTATTGTCAACAGGCTAGCAGTTTCCCTCGGACATTTCGGCCA 423

Qy 372 GGGAACCAAGCTGGAGATCAAACGAACTGTGGCTGCACCATCTGTCTTC 420
 |||||||
 Db 424 AGGGACCAAGGTGGAGATCAAACGTACGGTGGCTGCACCATCTGTCTTC 472

US-10-040-244-15

Query Match 87.1%; Score 365.8; DB 14; Length 728;
Best Local Similarity 93.4%; Pred. No. 6.4e-107;
Matches 382; Conservative 0; Mismatches 27; Indels 0; Gaps 0;

Qy	12	CATGATGGTCCCAGCTCAGCTCCTCGGTCTCCTGCTGCTCTGGTTCCCAAGTTCCAGATG	71
Db	64	CATGAGGGTCCCCGCTCAGCTCCTGGGGCTCCTGCTGCTCTGGTTCCCAAGTTCCAGATG	123
Qy	72	CGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGAGTCAC	131
Db	124	CGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGGATCTGTAGGAGACAGAGTCAC	183
Qy	132	CATCACTTGTCGGGCGAGTCAGGATATTAGCAGCTGGTTAGCCTGGTATCAGCATAAACC	191
Db	184	CATCACTTGTCGGGCGAGTCAGGGTATTAGCAGCTGGTTAGCCTGGTATCAGCAGAAACC	243
Qy	192	AGGTAAAGCACCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGTGGTGTCCCATC	251
Db	244	AGGGAAAGCCCCTAAGCTCCTGATCTATGCTGGATCCAGTTTGCAAAGTGGGGTCCCATC	303
Qy	252	AAGGTTTCAGCGGAAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTGCAGCC	311
Db	304	AAGGTTTCAGCGGCAGTGGATTTGGGACAGATTTCACTCTCACCATCAGCAGCCTGCAGCC	363
Qy	312	TGAAGATTTTGCAACTTACTATTGTCAACAGGCTAATAGTTTCCCGTACACTTTTGGTCA	371
Db	364	TGAAGATTTTGCAACTTACTATTGTCAACAGGCTAGCAGTTTCCCTCGGACATTCGGCCA	423


```

Db      244 AGGGAAAGCCCCTAAGCTCCTGATCTATGCTGGATCCAGTTTGCAAAGTGGGGTCCCATC 303
Qy      252 AAGGTTTCAGCGGAAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTGCAGCC 311
        ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db      304 AAGGTTTCAGCGGCAGTGGATTTGGGACAGATTTCACTCTCACCATCAGCAGCCTGCAGCC 363
Qy      312 TGAAGATTTTGCAACTTACTATTGTCAACAGGCTAATAGTTTCCCGTACACTTTTGGTCA 371
        ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db      364 TGAAGATTTTGCAACTTACTATTGTCAACAGGCTAGCAGTTTCCCTCGGACATTCGGCCA 423
Qy      372 GGGAAACCAAGCTGGAGATCAAACGAACTGTGGCTGCACCATCTGTCTTC 420
        || ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db      424 AGGGACCAAGGTGGAGATCAAACGTACGGTGGCTGCACCATCTGTCTTC 472

```

RESULT 6

US-09-844-684-13

; Sequence 13, Application US/09844684

; Patent No. US20020142358A1

; GENERAL INFORMATION:

; APPLICANT: GEMINI SCIENCE, INC.

; APPLICANT: LA JOLLA INSTITUTE FOR ALLERGY AND IMMUNOLOGY

; TITLE OF INVENTION: HUMAN ANTI-CD40 ANTIBODIES AND METHODS OF MAKING SAME

; FILE REFERENCE: 21286/0276339

; CURRENT APPLICATION NUMBER: US/09/844,684

; CURRENT FILING DATE: 2001-04-27

; PRIOR APPLICATION NUMBER: US 60/200,601

; PRIOR FILING DATE: 2000-04-28

; NUMBER OF SEQ ID NOS: 15

; SOFTWARE: PatentIn Ver. 2.1

; SEQ ID NO 13

; LENGTH: 716

; TYPE: DNA

; ORGANISM: Homo sapiens

US-09-844-684-13

```

Query Match          86.3%;  Score 362.6;  DB 9;  Length 716;
Best Local Similarity 92.9%;  Pred. No. 6.8e-106;
Matches 380;  Conservative 0;  Mismatches 29;  Indels 0;  Gaps 0;

```

```

Qy      12 CATGATGGTCCCAGCTCAGCTCCTCGGTCTCCTGCTGCTCTGGTTCCCAGGTTCCAGATG 71
        ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db      52 CATGAGGGTCCCCGCTCAGCTCCTGGGGCTCCTGCTGCTCTGGTTCCCAGGTTCCAGATG 111
Qy      72 CGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGAGTCAC 131
        ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db      112 CGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGCAGGAGACAGAGTCAC 171
Qy      132 CATCACTTGTCTGGGCGAGTCAGGATATTAGCAGCTGGTTAGCCTGGTATCAGCATAAACC 191
        ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db      172 CATCACTTGTCTGGGCGAGTCAGGGTATTAGCAGCTGGTTAGCCTGGTATCAACAGAAACC 231
Qy      192 AGGTAAAGCACCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGTGGTGTCCCATC 251
        ||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db      232 AGGGAAAGCCCCTAAGCTCCTGATCTATGCTGGATCCAGTTTGCAAAGTGGGGTCCCATC 291
Qy      252 AAGGTTTCAGCGGAAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTGCAGCC 311

```

Db 292 AAGGTTTCAGCGGCAGTGGATTGGGACAGATTCTCACTCTCACCATCGGCAGCCTGCAGCC 351
 Qy 312 TGAAGATTTTGCACCTTACTATTGTCAACAGGCTAATAGTTTCCCGTACACTTTTGGTCA 371
 Db 352 TGAAGATTTTGCACCTTACTATTGTCAACAGGCTAGCAGTTTCCCTCGGACGTTTCGGCCA 411
 Qy 372 GGAACCAAGCTGGAGATCAAACGAACTGTGGCTGCACCATCTGTCTTC 420
 Db 412 AGGGACCAAGGTGGAGATCAAACGTACGGTGGCTGCACCATCTGTCTTC 460

Db	232	AGGGAAAGCCCCTAAGCTCCTGATCTATGCTGGATCCAGTTTGCAAAGTGGGGTCCCATC	291
Qy	252	AAGGTTTCAGCGGAAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTGCAGCC	311
Db	292	AAGGTTTCAGCGGCAGTGGATTGGGACAGATTTCACTCTCACCATCGGCAGCCTGCAGCC	351
Qy	312	TGAAGATTTTGCAACTTACTATTGTCAACAGGCTAATAGTTTCCCGTACACTTTTGGTCA	371
Db	352	TGAAGATTTTGCAACTTACTATTGTCAACAGGCTAGCAGTTTCCCTCGGACGTTTCGGCCA	411
Qy	372	GGGAACCAAGCTGGAGATCAAACGAACTGTGGCTGCACCATCTGTCTTC	420
Db	412	AGGGACCAAGGTGGAGATCAAACGTACGGTGGCTGCACCATCTGTCTTC	460

RESULT 8

US-10-292-088-23

; Sequence 23, Application US/10292088

; Publication No. US20030211100A1

; GENERAL INFORMATION:

; APPLICANT: BEDIAN, VAHE

; APPLICANT: GLADUE, RONALD P.

; APPLICANT: CORVALAN, JOSE

; APPLICANT: JIA, XIAO-CHI

; APPLICANT: FENG, XIAO

; TITLE OF INVENTION: ANTIBODIES TO CD40

; FILE REFERENCE: ABX-PF/3 US

; CURRENT APPLICATION NUMBER: US/10/292,088

; CURRENT FILING DATE: 2003-03-14

; PRIOR APPLICATION NUMBER: 60/348,980

; PRIOR FILING DATE: 2001-11-09

```
; NUMBER OF SEQ ID NOS: 147
```

```
; SOFTWARE: PatentIn Ver. 2.1
```

; SEQ ID NO 23

; LENGTH: 705

; TYPE: DNA

; ORGANISM: Homo sapiens

US-10-292-088-23

Query Match 86.1%; Score 361.6; DB 15; Length 705;

Best Local Similarity 92.9%; Pred. No. 1.4e-105;

Matches 379; Conservative 0; Mismatches 29; Indels 0; Gaps 0;

Qy	13	ATGATGGTCCCAGCTCAGTCCTCGGTCTCCTGCTGCTCTGGTTCCCAAGTTCCAGATGC	72
Db	1	ATGAGGCTCCCTGCTCAGTCCTGGGGCTCCTGCTGCTCTGGTTCCCAAGTTCCAGATGC	60
Qy	73	GACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGAGTCACC	132
Db	61	GACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGAGTCACC	120
Qy	133	ATCACTTGTCGGGCGAGTCAGGATATTAGCAGCTGGTTAGCCTGGTATCAGCATAAACCA	192
Db	121	ATCACTTGTCGGGCGAGTCAGCCTATTAGCAGCTGGTTAGCCTGGTATCAGCAGAAACCA	180
Qy	193	GGTAAAGCACCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGTGGTGTCCCATCA	252

Db	181	GGGAAAGCCCCTAAACTCCTGATTTATTCTGCCTCCGGTTTGCAAAGTGGGGTCCCATCA	240
Qy	253	AGGTTTCAGCGGAAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTGCAGCCT	312
Db	241	AGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTGCAGCCT	300
Qy	313	GAAGATTTTGCAACTTACTATTGTCAACAGGCTAATAGTTTCCCGTACACTTTTGGTCAG	372
Db	301	GAAGATTTTGCAACTTACTATTGTCAACAGACTGACAGTTTCCCGTCACTTTCGGCGGC	360
Qy	373	GGAACCAAGCTGGAGATCAAACGAACTGTGGCTGCACCATCTGTCTTC	420
Db	361	GGGACCAAGGTGGAGATCAAACGAACTGTGGCTGCACCATCTGTCTTC	408

RESULT 9

US-10-292-088-47

; Sequence 47, Application US/10292088

; Publication No. US20030211100A1

; GENERAL INFORMATION:

; APPLICANT: BEDIAN, VAHE

; APPLICANT: GLADUE, RONALD P.

; APPLICANT: CORVALAN, JOSE

; APPLICANT: JIA, XIAO-CHI

; APPLICANT: FENG, XIAO

; TITLE OF INVENTION: ANTIBODIES TO CD40

; FILE REFERENCE: ABX-PF/3 US

; CURRENT APPLICATION NUMBER: US/10/292,088

; CURRENT FILING DATE: 2003-03-14

; PRIOR APPLICATION NUMBER: 60/348,980

; PRIOR FILING DATE: 2001-11-09

; NUMBER OF SEQ ID NOS: 147

```

; SOFTWARE: PatentIn Ver. 2.1

```

; SEQ ID NO 47

; LENGTH: 705

; TYPE: DNA

; ORGANISM: Homo sapiens

US-10-292-088-47

Query Match 86.1%; Score 361.6; DB 15; Length 705;

Best Local Similarity 92.9%; Pred. No. 1.4e-105;

Matches 379; Conservative 0; Mismatches 29; Indels 0; Gaps 0;

Qy	13	ATGATGGTCCCAGCTCAGCTCCTCGGTCTCCTGCTGCTCTGGTTCCCAGGTTCCAGATGC	72
Db	1	ATGAGGCTCCCTGCTCAGCTCCTGGGGCTCCTGCTGCTCTGGTTCCCAGGTTCCAGATGC	60
Qy	73	GACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGAGTCACC	132
Db	61	GACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGAGTCACC	120
Qy	133	ATCACTTGTCGGGCGAGTCAGGATATTAGCAGCTGGTTAGCCTGGTATCAGCATAAACCA	192
Db	121	ATCACTTGTCGGGCGAGTCAGGGTATTTACAGCTGGTTAGCCTGGTATCAGCAGAAACCA	180
Qy	193	GGTAAAGCACCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGTGGTGTCCCATCA	252


```

Qy      193 GGTAAAGCACCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGTGGTGTCCCATCA 252
      || ||||| |||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db      572 GGGAAAGCCCCCTACGCTCCTTATCTATGCTGCATCCACTTTGCAACGTGGGGTCCCATCA 513

Qy      253 AGGTTTCAGCGGAAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTGCAGCCT 312
      ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db      512 AGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTGCAGCCT 453

Qy      313 GAAGATTTTGCAACTTACTATTGTCAACAGGCTAATAGTTTCCCGTACACTTTTGGTCAG 372
      ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db      452 GAAGATTTTGCAACTTACTTTTGTCAACAGGCTAACAGTTTCCCATTCACCTTTCGGCCCT 393

Qy      373 GGAACCAAGCTGGAGATCAAACGAACGTGGCTGCACCATCTGTCTTC 420
      || ||||| |||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db      392 GGGACCAAAGTGGATATCAAACGAACGTGGCTGCACCATCTGTCTTC 345

```

RESULT 12

US-10-395-894-24

; Sequence 24, Application US/10395894

; Publication No. US20040033229A1

; GENERAL INFORMATION:

; APPLICANT: MADDON, Paul J.

; APPLICANT: DONOVAN, Gerald P.

; APPLICANT: OLSON, William C.

; APPLICANT: SCHSLKE, No. US20040033229Albert

; APPLICANT: GARDNER, Jason

; APPLICANT: MA, Dangshe

; TITLE OF INVENTION: PSMA ANTIBODIES AND PROTEIN MULTIMERS

; FILE REFERENCE: P00741.70005.US

; CURRENT APPLICATION NUMBER: US/10/395,894

; CURRENT FILING DATE: 2003-03-24

; PRIOR APPLICATION NUMBER: PCT/US02/33944

; PRIOR FILING DATE: 2002-10-23

; PRIOR APPLICATION NUMBER: US 60/335,215

; PRIOR FILING DATE: 2001-10-23

; PRIOR APPLICATION NUMBER: US 60/362,747

; PRIOR FILING DATE: 2002-03-07

; PRIOR APPLICATION NUMBER: US 60/412,618

; PRIOR FILING DATE: 2002-09-20

; NUMBER OF SEQ ID NOS: 33

; SOFTWARE: PatentIn version 3.1

; SEQ ID NO 24

; LENGTH: 463

; TYPE: DNA

; ORGANISM: Artificial Sequence

; FEATURE:

; OTHER INFORMATION: Includes BamHI/BglIII cloning junction, signal peptide, V region, portion

; OTHER INFORMATION: of C region and 3'XbaI/NheI (heavy) or NheI (light) cloning junction

US-10-395-894-24

```

Query Match          82.5%;  Score 346.4;  DB 16;  Length 463;
Best Local Similarity 90.0%;  Pred. No. 9.5e-101;
Matches 371;  Conservative 0;  Mismatches 41;  Indels 0;  Gaps 0;

```



```
; SEQ ID NO 24
;   LENGTH: 463
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Includes BamHI/BglII cloning junction, signal peptide, V
region, portion
;   OTHER INFORMATION: of C region and 3'XbaI/NheI (heavy) or NheI (light)
cloning junction
US-10-695-667-24
```

Qy	9	CACCATGATGGTCCCGCTCAGCTCCTCGGTCTCTGCTGCTTGTTCCAGGTTCCAG	68
Db	7	CACCATGAGGGTCCCTGCTCAGCTCCTGGGGCTCCTGCTGCTCTGTTTTCCAGGTGCCAG	66
Qy	69	ATGC GACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGAGT	128
Db	67	ATGTGACATCCAGATGACCCAGTCTCCATCCTCACTGTCTGCATCTGTAGGAGACAGAGT	126
Qy	129	CACCATCACTTGTTCGGGCGAGTCAGGATATTAGCAGCTGGTTAGCCTGGTATCAGCATAA	188
Db	127	CACCATCACTTGTTCGGGCGAGTCAGGGCATTAGCCATTATTTAGCCTGGTTTCAGCAGAA	186
Qy	189	ACCAGGTAAAGCACCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGTGGTGTCCC	248
Db	187	ACCAGGGAAAGCCCCTAAGTCCCTGATCTATGCTGCATCCAGTTTGCAAAGTGGGGTCCC	246
Qy	249	ATCAAGGTTTCAGCGGAAGTGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTGCA	308
Db	247	ATCAAAGTTTCAGCGGCAGTGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTACA	306
Qy	309	GCCTGAAGATTTTGCAACTTACTATTGTCAACAGGCTAATAGTTTCCCGTACACTTTTGG	368
Db	307	GCCTGAAGATTTTGCAACTTATTACTGCCAACAGTATAATAGTTTCCCGCTCACTTTTCGG	366
Qy	369	TCAGGGAACCAAGCTGGAGATCAAACGAACTGTGGCTGCACCATCTGTCTTTC	420
Db	367	CGGAGGGACCAAGGTGGAGATCAAACGAACTGTGGCTGCACCATCTGTCTTTC	418

Query Match 82.5%; Score 346.4; DB 16; Length 6082;
Best Local Similarity 90.0%; Pred. No. 2e-100;
Matches 371; Conservative 0; Mismatches 41; Indels 0; Gaps 0;

RESULT 15
US-10-695-667-10
; Sequence 10, Application US/10695667
; Publication No. US20040161776A1

Db 1213 GCCTGAAGATTTTGCAACTTATTACTGCCAACAGTATAATAGTTTCCCGCTCACTTTTCGG 1272

Qy 369 TCAGGGAACCAAGCTGGAGATCAAACGAACTGTGGCTGCACCATCTGTCTTC 420

Db 1273 CGGAGGGACCAAGGTGGAGATCAAACGAACTGTGGCTGCACCATCTGTCTTC 1324

Search completed: December 3, 2004, 02:43:24
Job time : 323.011 secs

GenCore version 5.1.6
Copyright (c) 1993 - 2004 Compugen Ltd.

OM nucleic - nucleic search, using sw model

Run on: December 2, 2004, 12:19:03 ; Search time 2186.2 Seconds
(without alignments)
7000.593 Million cell updates/sec

Title: US-08-728-463B-220
Perfect score: 420
Sequence: 1 AAGCTTGCCACCATGATGGT.....TGGCTGCACCATCTGTCTTC 420

Scoring table: IDENTITY_NUC
Gapop 10.0 , Gapext 1.0

Searched: 32822875 seqs, 18219865908 residues

Total number of hits satisfying chosen parameters: 65645750

Minimum DB seq length: 0
Maximum DB seq length: 20000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : EST:*
1: gb_est1:*
2: gb_est2:*
3: gb_htc:*
4: gb_est3:*
5: gb_est4:*
6: gb_est5:*
7: gb_est6:*
8: gb_gss1:*
9: gb_gss2:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result	Query				
No.	Score	Match	Length	DB	ID
					Description

1	385	91.7	943	2	BF976230	BF976230	602245105
2	373.8	89.0	1100	2	BF663472	BF663472	602144635
3	372.2	88.6	606	6	CD690290	CD690290	EST6813 h
4	370.6	88.2	755	4	BG533970	BG533970	602553071
5	369	87.9	472	6	CD702614	CD702614	EST19139
6	364.2	86.7	497	6	CD696718	CD696718	EST13241
7	364.2	86.7	558	6	CD690030	CD690030	EST6553 h
8	364.2	86.7	605	6	CD688415	CD688415	EST4937 h
9	363.4	86.5	851	4	BG686018	BG686018	602638582
10	363.4	86.5	894	4	BG341803	BG341803	602463535
11	359.4	85.6	912	2	BF129120	BF129120	601811580
12	356.2	84.8	510	6	CD694557	CD694557	EST11080
13	353.8	84.2	818	3	CR597684	CR597684	full-length
14	353	84.0	484	6	CD696042	CD696042	EST12565
15	352.8	84.0	903	5	BQ706785	BQ706785	AGENCOURT
16	350.4	83.4	1112	4	BM924778	BM924778	AGENCOURT
17	350	83.3	561	6	CD706288	CD706288	EST22815
18	349.8	83.3	487	2	AW405988	AW405988	UI-HF-BLO
19	349.8	83.3	611	6	CD702728	CD702728	EST19253
20	349.8	83.3	724	4	BI837410	BI837410	603086702
21	349.8	83.3	759	6	CB984469	CB984469	AGENCOURT
22	349.8	83.3	886	4	BG756818	BG756818	602710291
23	349	83.1	906	4	BG756264	BG756264	602713576
24	348.2	82.9	769	6	CB957759	CB957759	AGENCOURT
25	348	82.9	710	6	CD695065	CD695065	EST11588
26	346.6	82.5	545	6	CD697196	CD697196	EST13719
27	346	82.4	486	6	CD683960	CD683960	EST480 hu
28	345	82.1	433	2	AW951891	AW951891	EST363961
29	345	82.1	629	6	CD697149	CD697149	EST13672
30	345	82.1	630	6	CD694356	CD694356	EST10879
31	345	82.1	689	6	CB055233	CB055233	NISC_gm08
32	345	82.1	830	4	BG535683	BG535683	602563394
33	343.4	81.8	560	4	BM823497	BM823497	K-EST0094
34	343.4	81.8	741	6	CB958688	CB958688	AGENCOURT
35	341.8	81.4	504	6	CD696759	CD696759	EST13282
36	341.8	81.4	610	6	CD691065	CD691065	EST7588 h
37	341.8	81.4	631	5	BX646383	BX646383	DKFZp781G
38	341.8	81.4	677	6	CD692170	CD692170	EST8709 h
39	340.4	81.0	726	6	CB986484	CB986484	AGENCOURT
40	340.2	81.0	624	6	CD690145	CD690145	EST6668 h
41	340.2	81.0	805	6	CB955618	CB955618	AGENCOURT
42	339.4	80.8	1038	4	BG757218	BG757218	602710591
43	338.6	80.6	447	2	AW405752	AW405752	UI-HF-BLO
44	338.6	80.6	574	6	CD710508	CD710508	EST27035
45	338.6	80.6	770	6	CB987520	CB987520	AGENCOURT

ALIGNMENTS

RESULT 1

BF976230

LOCUS BF976230 943 bp mRNA linear EST 22-JAN-2001

DEFINITION 602245105F1 NIH_MGC_48 Homo sapiens cDNA clone IMAGE:4336225 5', mRNA sequence.

ACCESSION BF976230

VERSION BF976230.1 GI:12343445
 KEYWORDS EST.
 SOURCE Homo sapiens (human)
 ORGANISM Homo sapiens
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
 REFERENCE 1 (bases 1 to 943)
 AUTHORS NIH-MGC <http://mgc.nci.nih.gov/>.
 TITLE National Institutes of Health, Mammalian Gene Collection (MGC)
 JOURNAL Unpublished (1999)
 COMMENT Contact: Robert Strausberg, Ph.D.
 Email: cgapbs-r@mail.nih.gov
 Tissue Procurement: Louis M. Staudt, M.D., Ph.D.
 cDNA Library Preparation: Ling Hong/Rubin Laboratory
 cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
 DNA Sequencing by: Incyte Genomics, Inc.
 Clone distribution: MGC clone distribution information can be
 found through the I.M.A.G.E. Consortium/LLNL at:
<http://image.llnl.gov>
 Plate: LLCM1208 row: j column: 02
 High quality sequence stop: 721.
 FEATURES Location/Qualifiers
 source 1..943
 /organism="Homo sapiens"
 /mol_type="mRNA"
 /db_xref="taxon:9606"
 /clone="IMAGE:4336225"
 /tissue_type="primary B-cells from tonsils (cell line)"
 /lab_host="DH10B (phage-resistant)"
 /clone_lib="NIH_MGC_48"
 /note="Organ: B-cells; Vector: pOTB7; Site_1: XhoI;
 Site_2: EcoRI; cDNA made by oligo-dT priming.
 Directionally cloned into EcoRI/XhoI sites using the
 following 5' adaptor: GGCACGAG(G). Size-selected >500bp
 for average insert size 1.8kb. Library constructed by Ling
 Hong in the laboratory of Gerald M. Rubin (University of
 California, Berkeley) using ZAP-cDNA synthesis kit
 (Stratagene) and Superscript II RT (Life Technologies).
 Note: this is a NIH_MGC Library."

ORIGIN

Query Match 91.7%; Score 385; DB 2; Length 943;
 Best Local Similarity 96.3%; Pred. No. 2.9e-109;
 Matches 394; Conservative 0; Mismatches 15; Indels 0; Gaps 0;

```

Qy      12 CATGATGGTCCCAGCTCAGCTCCTCGGTCTCCTGCTGCTCTGGTTCCCAGGTTCCAGATG 71
        |||||  |||||  |||||  |||||  |||||  |||||  |||||  |||||  |||||  |||||
Db      23 CATGAGGGTCCCCGCTCAGCTCCTGGGGCTCCTGCTGCTCTGGTTCCCAGGTTCCAGATG 82

Qy      72 CGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGAGTCAC 131
        |||||  |||||  |||||  |||||  |||||  |||||  |||||  |||||  |||||  |||||
Db      83 CGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGAGTCAC 142

Qy      132 CATCACTTGTCGGGCGAGTCAGGATATTAGCAGCTGGTTAGCCTGGTATCAGCATAAACC 191
        |||||  |||||  |||||  |||||  |||||  |||||  |||||  |||||  |||||  |||||
Db      143 CATCACTTGTCGGGCGAGTCAGGGTATTAGCAGCTGGTTAGCCTGGTATCAGCAGAAACC 202
  
```

[illegible]

for average insert size 1.8kb. Library constructed by Ling Hong in the laboratory of Gerald M. Rubin (University of California, Berkeley) using ZAP-cDNA synthesis kit (Stratagene) and Superscript II RT (Life Technologies).
Note: this is a NIH_MGC Library."

ORIGIN

Query Match 89.0%; Score 373.8; DB 2; Length 1100;
Best Local Similarity 94.6%; Pred. No. 1e-105;
Matches 387; Conservative 0; Mismatches 22; Indels 0; Gaps 0;

```

Qy      12 CATGATGGTCCCAGCTCAGCTCCTCGGTCTCCTGCTGCTCTGGTCCCAGGTTCAGATG 71
        ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db      13 CATGAGGGTCCCCGCTCAGCTCCTGGGGCTCCTGCTGCTCTGGTCCCAGGTTCAGATG 72

Qy      72 CGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGAGTCAC 131
        ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db      73 CGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGAGTCAC 132

Qy      132 CATCACTTGTCGGGCGAGTCAGGATATTAGCAGCTGGTTAGCCTGGTATCAGCATAAACC 191
        ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db      133 CATCACTTGTCGGGCGAGTCAGGATATTAGCAGCTGGTTAGCCTGGTATCAGCAGAAACC 192

Qy      192 AGGTAAAGCACCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGTGGTGTCCCATC 251
        ||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db      193 AGGGAAAGCCCCTAAGCTCCTGATCTATGCTTCATCCAGTTTGCAAAGTGGGGTCCCATC 252

Qy      252 AAGGTTTCAGCGGAAGTGGATCTGGGACAGATTTCACCTCTACCATCAGCAGCCTGCAGCC 311
        ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db      253 AAGGTTTCAGCGGAGTGGATCTGGGACAGATTTCACCTCTACCATCAGCAGCCTGCAGCC 312

Qy      312 TGAAGATTTTGCAACTTACTATTGTCAACAGGCTAATAGTTTCCCGTACACTTTTGGTCA 371
        ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db      313 TGAAGATTTTGCAACTTACTATTGTCAACAGGCTAACAGTTTCCCTCTCACTTTTCGGCGG 372

Qy      372 GGGAACCAAGCTGGAGATCAAACGAACTGTGGCTGCACCATCTGTCTTC 420
        || ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db      373 AGGGACCAAGGTGGAGATCAAACGAACTGTGGCTGCACCATCTGTCTTC 421

```

RESULT 3

```

CD690290
LOCUS      CD690290                      606 bp    mRNA    linear    EST 25-JUN-2003
DEFINITION EST6813 human nasopharynx Homo sapiens cDNA, mRNA sequence.
ACCESSION  CD690290
VERSION    CD690290.1  GI:32210896
KEYWORDS   EST.
SOURCE     Homo sapiens (human)
ORGANISM   Homo sapiens
            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
            Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
REFERENCE  1 (bases 1 to 606)
AUTHORS    Liu,X.-Q., Zhou,Y., Zhang,L.-J., Xu,H., Chen,H.-K., Pan,Z.-G. and
            Zeng,Y.-X.
TITLE      Transcriptional Gene Expression Profile of Human Nasopharynx
JOURNAL    Unpublished (2003)
COMMENT    Contact: YiXin Zeng

```


FEATURES	Location/Qualifiers
source	1. .606 /organism="Homo sapiens" /mol_type="mRNA" /db_xref="taxon:9606" /tissue_type="normal nasopharynx" /clone_lib="human nasopharynx" /note="ESTs generated from a normal nasopharynx cDNA library from southern Chinese"

Query Match 88.6%; Score 372.2; DB 6; Length 606;
Best Local Similarity 94.4%; Pred. No. 2.6e-105;
Matches 386; Conservative 0; Mismatches 23; Indels 0; Gaps 0;

[illegible]

```

RESULT 4
BG533970
LOCUS      BG533970              755 bp      mRNA      linear      EST 03-APR-2001
DEFINITION 602553071F1 NIH_MGC_77 Homo sapiens cDNA clone IMAGE:4663096 5',
            mRNA sequence.
ACCESSION  BG533970
VERSION    BG533970.1  GI:13525510

```

KEYWORDS EST.

SOURCE Homo sapiens (human)

ORGANISM Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1 (bases 1 to 755)

AUTHORS NIH-MGC <http://mgc.nci.nih.gov/>.

TITLE National Institutes of Health, Mammalian Gene Collection (MGC)

JOURNAL Unpublished (1999)

COMMENT Contact: Robert Strausberg, Ph.D.
Email: cgapbs-r@mail.nih.gov
Tissue Procurement: CLONTECH Laboratories, Inc.
cDNA Library Preparation: CLONTECH Laboratories, Inc.
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution information can be
found through the I.M.A.G.E. Consortium/LLNL at:
<http://image.llnl.gov>
Plate: LLCM1464 row: m column: 17
High quality sequence stop: 726.

FEATURES Location/Qualifiers

source 1..755
/organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/clone="IMAGE:4663096"
/lab_host="DH10B (T1 phage-resistant)"
/clone_lib="NIH_MGC_77"
/note="Organ: lung; Vector: pDNR-LIB (Clontech); Site_1:
SfiI (ggccgcctcggcc); Site_2: SfiI (ggccattatggcc); 5' and
3' adaptors were used in cloning as follows: 5' adaptor
sequence: 5'-CACGGCCATTATGGCC-3' and 3' adaptor sequence:
5'-ATTCTAGAGGCCGAGGCGCCGACATG-dT(30)BN-3' (where B = A,
C, or G and N = A, C, G, or T). Average insert size 1.9
kb (range 0.5-4.0 kb). 12/15 colonies contained inserts
by PCR. This library was enriched for full-length clones
and was constructed by Clontech Laboratories (Palo Alto,
CA). Note: this is a NIH_MGC Library."

ORIGIN

Query Match 88.2%; Score 370.6; DB 4; Length 755;
Best Local Similarity 94.1%; Pred. No. 9e-105;
Matches 385; Conservative 0; Mismatches 24; Indels 0; Gaps 0;

```

Qy      12 CATGATGGTCCCAGCTCAGCTCCTCGGTCTCCTGCTGCTCTGGTTCCCAGGTTCCAGATG 71
        ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db      33 CATGAGGGTCCCCGCTCAGCTCCTGGGGCTCCTGCTGCTCTGGTTCCCAGGTTCCAGATG 92

Qy      72 CGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGAGTCAC 131
        ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db      93 CGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACGGAGTCAC 152

Qy     132 CATCACTTGTCTGGGCGAGTCAGGATATTAGCAGCTGGTTAGCCTGGTATCAGCATAAACC 191
        ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db     153 CATCACTTGTCTGGGCGAGTCAGGGTATCAGCAGCTGGTTAGCCTGGTATCAGCAGAAAGC 212

Qy     192 AGGTAAAGCACCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGTGGTGTCCCATC 251

```

Db	213	AGGGAAAGCCCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGTGGGGTCCCATC	272
Qy	252	AAGGTTTCAGCGGAAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTGCAGCC	311
Db	273	AAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTGCAGCC	332
Qy	312	TGAAGATTTTGCAACTTACTATTGTCAACAGGCTAATAGTTTCCCGTACACTTTTGGTCA	371
Db	333	TGAAGATTTTGCAACTTACTATTGTCAACAGGGTAACAGTTTCCCTTTCACTTTTCGGCGG	392
Qy	372	GGGAACCAAGCTGGAGATCAAACGAACTGTGGCTGCACCATCTGTCTTC	420
Db	393	AGGGACCAAGGTGGAGATCAAACGAACTGTGGCTGCACCATCTGTCTTC	441

RESULT 5

CD702614

LOCUS	CD702614	472 bp	mRNA	linear	EST 25-JUN-2003
-------	----------	--------	------	--------	-----------------

DEFINITION EST19139 human nasopharynx *Homo sapiens* cDNA, mRNA sequence.

ACCESSION CD702614

VERSION CD702614.1 GI:32233244

KEYWORDS EST.

SOURCE Homo sapiens (human)

ORGANISM Homo sapiens

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1 (bases 1 to 472)

AUTHORS Liu, X.-Q., Zhou, Y., Zhang, L.-J., Xu, H., Chen, H.-K., Pan, Z.-G. and
 Zeng, Y.-X.

TITLE Transcriptional Gene Expression Profile of Human Nasopharynx

JOURNAL Unpublished (2003)

COMMENT Contact: YiXin Zeng

Cancer Center

Sun Yat-sen University

651 DongFeng Road East, GuangZhou 510060, China

Tel: 86-1380-9770-743

Fax: 86-20-8775-4506

Email: yxzeng@qzsums.edu.cn.

FEATURES	Location/Qualifiers
----------	---------------------

```
source      1.  .472
```

```
/organism="Homo sapiens"
```

```
/mol type="mRNA"
```

```
/db_xref="taxon:9606"
```

```
/tissue type="normal nasopharynx"
```

```
/clone lib="human nasopharynx"
```

/note="ESTs generated from a normal nasopharynx cDNA

library from southern Chinese"

ORIGIN

Query Match 87.9%; Score 369; DB 6; Length 472;

Best Local Similarity 93.9%; Pred. No. 2.5e-104;

Matches 384; Conservative 0; Mismatches 25; Indels 0; Gaps 0;

Qy 12 CATGATGGTCCCAGCTCAGCTCCTCGGTCTCCTGCTGCTCTGGTTCCCAGGTTCCAGATG 71

Db 57 CATGAGGGTCCCCGCTCAGCTCCTGGGGCTCCTGCTGCTCTGGTTCCCAGGTTCCAGATG 116

Qy 72 CGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGAGTCAC 131
 |||
 Db 117 CGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGCGTCAC 176
 |||
 Qy 132 CATCACTTGTCTGGGCGAGTCAGGATATTAGCAGCTGGTTAGCCTGGTATCAGCATAAACC 191
 |||
 Db 177 CATCACTTGTCTGGGCGAGTCAGGCTATTAGCACCTGGTTAGCCTGGTATCAGCAGAAACC 236
 |||
 Qy 192 AGGTAAAGCACCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGTGGTGTCCCATC 251
 |||
 Db 237 AGGGAAAGCCCCTAAGCTCCTGATCTATACTGCATCCAGTTTGCAAAGTGGGGTCCCATC 296
 |||
 Qy 252 AAGGTTTCAGCGGAAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTGCAGCC 311
 |||
 Db 297 AAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTGCAGCC 356
 |||
 Qy 312 TGAAGATTTTGTCAACTTACTATTGTCAACAGGCTAATAGTTTCCCGTACACTTTTGGTCA 371
 |||
 Db 357 TGAAGATTTTGTCAACTTACTATGGTCAACAGGCTAACAGTTTCCCTCTCACTTTTCGGCGG 416
 |||
 Qy 372 GGGAACCAAGCTGGAGATCAAACGAACGTGTGGCTGCACCATCTGTCTTC 420
 |||
 Db 417 AGGGACCAAGGTGGAGATCAAACGAACGTGTGGCTGCACCATCTGTCTTC 465
 |||

RESULT 6

CD696718

LOCUS CD696718 497 bp mRNA linear EST 25-JUN-2003

DEFINITION EST13241 human nasopharynx Homo sapiens cDNA, mRNA sequence.

ACCESSION CD696718

VERSION CD696718.1 GI:32223477

KEYWORDS EST.

SOURCE Homo sapiens (human)

ORGANISM Homo sapiens

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1 (bases 1 to 497)

AUTHORS Liu,X.-Q., Zhou,Y., Zhang,L.-J., Xu,H., Chen,H.-K., Pan,Z.-G. and Zeng,Y.-X.

TITLE Transcriptional Gene Expression Profile of Human Nasopharynx

JOURNAL Unpublished (2003)

COMMENT Contact: YiXin Zeng

Cancer Center

Sun Yat-sen University

651 DongFeng Road East, GuangZhou 510060, China

Tel: 86-1380-9770-743

Fax: 86-20-8775-4506

Email: yxzeng@gzsums.edu.cn.

FEATURES

source

Location/Qualifiers

1. .497

/organism="Homo sapiens"

/mol_type="mRNA"

/db_xref="taxon:9606"

/tissue_type="normal nasopharynx"

/clone_lib="human nasopharynx"

/note="ESTs generated from a normal nasopharynx cDNA"

ORIGIN

[illegible]

CD690030

LOCUS	CD690030	558 bp	mRNA	linear	EST 25-JUN-2003
DEFINITION	EST6553 human nasopharynx Homo sapiens cDNA, mRNA sequence.				
ACCESSION	CD690030				
VERSION	CD690030.1 GI:32210387				
KEYWORDS	EST.				
SOURCE	Homo sapiens (human)				
ORGANISM	Homo sapiens				
	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.				
REFERENCE	1 (bases 1 to 558)				
AUTHORS	Liu,X.-Q., Zhou,Y., Zhang,L.-J., Xu,H., Chen,H.-K., Pan,Z.-G. and Zeng,Y.-X.				
TITLE	Transcriptional Gene Expression Profile of Human Nasopharynx				
JOURNAL	Unpublished (2003)				
COMMENT	Contact: YiXin Zeng				
	Cancer Center				
	Sun Yat-sen University				
	651 DongFeng Road East, GuangZhou 510060, China				
	Tel: 86-1380-9770-743				

Email: yxzeng@gzsums.edu.cn.

ORIGIN

Qy	12	CATGATGGTCCCGCTCAGCTCCTCGGTCTCCTGCTGCTCTGGTTCCCAGGTTCCAGATG	71
Db	55	CATGAGGGTCCCCGCTCAGCTCCTGGGGCTCCTGCTGCTCTGGTTCCCAGGTTCCAGATG	114
Qy	72	CGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGAGTCAC	131
Db	115	CGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGAGTCAC	174
Qy	132	CATCACTTGTCGGGCGAGTCAGGATATTAGCAGCTGGTTAGCCTGGTATCAGCATAAACC	191
Db	175	CATCACTTGTCGGGCGAGTCAGGGTATTAGCACCTGGTTAGCCTGGTATCAGCAGAAACC	234
Qy	192	AGGTAAAGCACCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGTGGTGTCCCATC	251
Db	235	AGGGAAAGCCCCATAAATCCTGATCTATGCTGCATCCAATTTGCTAAGTGGGGTCCCATC	294
Qy	252	AAGGTTTCAGCGGAAGTGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTGCAGCC	311
Db	295	AAGATTTCAGCGGCAGTGATCTGGGACAGATTTCACTCTCACCATCAACAGCCTGCAGCC	354
Qy	312	TGAAGATTTTGCAACTTACTATTGTCAACAGGCTAATAGTTTCCCGTACACTTTTGGTCA	371
Db	355	TGAAGATTTTGCAACTTACTATTGTCAACAGGCTAACAGTTTCCCTCGGACGTTTCGGCCA	414
Qy	372	GGAACCAAGCTGGAGATCAAACGAACTGTGGCTGCACCATCTGTCTTC	420
Db	415	AGGGACCAAGGTGGAATCAAACGAACTGTGGCTGCACCATCTGTCTTC	463

```

RESULT 8
CD688415
LOCUS          CD688415                605 bp    mRNA    linear    EST 25-JUN-2003
DEFINITION     EST4937 human nasopharynx Homo sapiens cDNA, mRNA sequence.
ACCESSION      CD688415
VERSION        CD688415.1  GI:32207195
KEYWORDS       EST.
SOURCE         Homo sapiens (human)
ORGANISM       Homo sapiens
               Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
               Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

```

REFERENCE 1 (bases 1 to 605)
AUTHORS Liu,X.-Q., Zhou,Y., Zhang,L.-J., Xu,H., Chen,H.-K., Pan,Z.-G. and Zeng,Y.-X.
TITLE Transcriptional Gene Expression Profile of Human Nasopharynx
JOURNAL Unpublished (2003)
COMMENT Contact: YiXin Zeng
Cancer Center
Sun Yat-sen University
651 DongFeng Road East, GuangZhou 510060, China
Tel: 86-1380-9770-743
Fax: 86-20-8775-4506
Email: yxzeng@gzsums.edu.cn.

FEATURES Location/Qualifiers
source 1. .605
/organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/tissue_type="normal nasopharynx"
/clone_lib="human nasopharynx"
/note="ESTs generated from a normal nasopharynx cDNA library from southern Chinese"

ORIGIN

Query Match 86.7%; Score 364.2; DB 6; Length 605;
Best Local Similarity 93.2%; Pred. No. 8.6e-103;
Matches 381; Conservative 0; Mismatches 28; Indels 0; Gaps 0;

Qy	12	CATGATGGTCCCAGCTCAGCTCCTCGGTCTCCTGCTGCTCTGGTTCCCAGGTTCCAGATG	71
Db	52	CATGAGGGTCCCCGCTCAGCTCCTGGGGCTCCTGCTGCTCTGGTTCCCAGGTTCCAGATG	111
Qy	72	CGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGAGTCAC	131
Db	112	CGACATCCACATGACCCAGTCTCCATCTTCTGTGTCTGCATCTGTTGGAGACAGAGTCAC	171
Qy	132	CATCACTTGTCTGGGCGAGTCAGGATATTAGCAGCTGGTTAGCCTGGTATCAGCATAAACC	191
Db	172	CATCACTTGTCTGGGCGAGTCAGGGTATTAGCAGCTGGTTAGCCTGGTATCAGCAGAAACC	231
Qy	192	AGGTAAAGCACCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGTGGTGTCCCATC	251
Db	232	AGGGAAAGCCCCTAAACTCCTGATCTCTACTGCATCCAGTTTGCAAAGTGGGGTCCCATC	291
Qy	252	AAGGTTTCAGCGGAAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTGCAGCC	311
Db	292	AAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACTATCAGCAGCCTGCAGCC	351
Qy	312	TGAAGATTTTGCAACTTACTATTGTCAACAGGCTAATAGTTTCCCGTACACTTTTGGTCA	371
Db	352	TGAAGATTTTGCAACTTACTATTGTCAACAGACTAACAGTTTCCCGCTCACTTTTCGGCGG	411
Qy	372	GGGAACCAAGCTGGAGATCAAACGAACTGTGGCTGCACCATCTGTCTTC	420
Db	412	AGGGACCAAGGTGGAGATCAAACGAACTGTGGCTGCACCATCTGTCTTC	460

```

BG686018
LOCUS      BG686018                      851 bp      mRNA      linear      EST 01-MAY-2001
DEFINITION 602638582F1 NIH_MGC_48 Homo sapiens cDNA clone IMAGE:4766157 5',
            mRNA sequence.
ACCESSION  BG686018
VERSION    BG686018.1  GI:13917415
KEYWORDS   EST.
SOURCE     Homo sapiens (human)
  ORGANISM Homo sapiens
            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
            Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
REFERENCE  1 (bases 1 to 851)
  AUTHORS  NIH-MGC http://mgc.nci.nih.gov/.
  TITLE    National Institutes of Health, Mammalian Gene Collection (MGC)
  JOURNAL  Unpublished (1999)
COMMENT    Contact: Robert Strausberg, Ph.D.
            Email: cgapbs-r@mail.nih.gov
            Tissue Procurement: Louis M. Staudt, M.D., Ph.D.
            cDNA Library Preparation: Ling Hong/Rubin Laboratory
            cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
            DNA Sequencing by: Incyte Genomics, Inc.
            Clone distribution: MGC clone distribution information can be
            found through the I.M.A.G.E. Consortium/LLNL at:
            http://image.llnl.gov
            Plate: LLCM1626 row: c column: 22
            High quality sequence stop: 851.

```

ORIGIN

Query Match 86.5%; Score 363.4; DB 4; Length 851;
Best Local Similarity 94.6%; Pred. No. 1.7e-102;
Matches 387; Conservative 0; Mismatches 21; Indels 1; Gaps 1;

Qy 12 CATGATGGTCCCAGCTCAGCTCCTCGGTCTCCTGCTGCTCTGGTTCCCAAGTTCCAGATG 71
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
Db 13 CATGAGGGTCCCCGCTCAGCTCCTGGGGCTCCTGCTGCTCTGGTTCCCAAGTTCCAGATG 72

Qy 72 CGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGAGTCAC 131
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
Db 73 CGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGAGTCAC 132

Qy 132 CATCACTTGTCTGGGCGAGTCAGGATATTAGCAGCTGGTTAGCCTGGTATCAGCATAAAACC 191
 |||
 Db 133 CATCACTTGTCTGGGCGAGTCAGGATATTAGCAGCTGGTTAGCCTGGTATCAGCAGAAACC 192
 |||
 Qy 192 AGGTAAAGCACCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGTGGTGTCCCATC 251
 |||
 Db 193 AGG-AAAGCCCCCTAAGCTCCTGATCTATGCTTCATCCAGTTTGCAAAGTGGGGTCCCATC 251
 |||
 Qy 252 AAGGTTTCAGCGGAAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTGCAGCC 311
 |||
 Db 252 AAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTGCAGCC 311
 |||
 Qy 312 TGAAGATTTTGCAACTTACTATTGTCAACAGGCTAATAGTTTCCCGTACACTTTTGGTCA 371
 |||
 Db 312 TGAAGATTTTGCAACTTACTATTGTCAACAGGCTAACAGTTTCCCTCTCACTTTTCGGCGG 371
 |||
 Qy 372 GGGAAACCAAGCTGGAGATCAAACGAACTGTGGCTGCACCATCTGTCTTC 420
 |||
 Db 372 AGGGACCAAGGTGGAGATCAAACGAACTGTGGCTGCACCATCTGTCTTC 420
 |||

RESULT 10

BG341803

LOCUS BG341803 894 bp mRNA linear EST 27-FEB-2001

DEFINITION 602463535F1 NIH_MGC_48 Homo sapiens cDNA clone IMAGE:4576136 5', mRNA sequence.

ACCESSION BG341803

VERSION BG341803.1 GI:13148241

KEYWORDS EST.

SOURCE Homo sapiens (human)

ORGANISM Homo sapiens

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1 (bases 1 to 894)

AUTHORS NIH-MGC <http://mgc.nci.nih.gov/>.

TITLE National Institutes of Health, Mammalian Gene Collection (MGC)

JOURNAL Unpublished (1999)

COMMENT Contact: Robert Strausberg, Ph.D.

Email: cgapbs-r@mail.nih.gov

Tissue Procurement: Louis M. Staudt, M.D., Ph.D.

cDNA Library Preparation: Ling Hong/Rubin Laboratory

cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)

DNA Sequencing by: Incyte Genomics, Inc.

Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at:

<http://image.llnl.gov>

Plate: LLCM1288 row: f column: 09

High quality sequence stop: 636.

FEATURES

source

Location/Qualifiers

1..894

/organism="Homo sapiens"

/mol_type="mRNA"

/db_xref="taxon:9606"

/clone="IMAGE:4576136"

/tissue_type="primary B-cells from tonsils (cell line)"

/lab_host="DH10B (phage-resistant)"

ORIGIN

Qy		12 CATGATGGTCCCAGCTCAGCTCCTCGGTCTCCTGCTGCTCTGGTTCCCAAGTTCCAGATG	71
Db		18 CATGAGGGTCCCCGCTCAGCTCCTGGGGCTCCTGCTGCTCTGGTTCCCAAGTTCCAGATG	77
Qy		72 CGACATCCAGATGACCCAGTCTCCATCTTCGGTGCTGCATCTGTAGGAGACAGAGTCAC	131
Db		78 CGACATCCAGATGACCCAGTCTCCATCTTCGGTGCTGCATCTGTAGGAGACAGAGTCAC	137
Qy		132 CATCACTTGTCGGGCGAGTCAGGATAATTAGCAGCTGGTAGCCTGGTATCAGCATAAACC	191
Db		138 CATCACTTGTCGGGCGAGTCAGGTAATTAGCAGCTGGTAGCCTGGTATCAGCAGAAACC	197
Qy		192 AGGTAAAGCACCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGTGGTGTCCCATC	251
Db		198 AGG-AAAGCCCCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGTGGGGTCCCATC	256
Qy		252 AAGGTTTCAGCGGAAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTGCAGCC	311
Db		257 AAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTGCAGCC	316
Qy		312 TGAAGATTTTTGCAACTTACTATTGTCAACAGGCTAATAGTTTCCCGTACACTTTTGGTCA	371
Db		317 TGAAGATTTTTGCAACTTACTATTGTCAACAGGCTCACAGTTTCCATTCACTTTCGGCCC	376
Qy		372 GGAACCAAGCTGGAGATCAAACGAACTGTGGCTGCACCATCTGTCTTC	420
Db		377 TGGGACCAAAGTGGATATCAAACGAACTGTGGCTGCACCATCTGTCTTC	425

BF129120

```

LOCUS          BF129120          912 bp      mRNA      linear      EST 24-OCT-2000
DEFINITION     601811580F1 NIH_MGC_48 Homo sapiens cDNA clone IMAGE:4054530 5',
               mRNA sequence.
ACCESSION      BF129120
VERSION        BF129120.1  GI:10968160
KEYWORDS       EST.
SOURCE         Homo sapiens (human)
  ORGANISM     Homo sapiens
               Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
               Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

```

REFERENCE 1 (bases 1 to 912)

AUTHORS NIH-MGC <http://mgc.nci.nih.gov/>.

TITLE National Institutes of Health, Mammalian Gene Collection (MGC)

JOURNAL Unpublished (1999)

COMMENT Contact: Robert Strausberg, Ph.D.
 Email: cgapbs-r@mail.nih.gov
 Tissue Procurement: Louis M. Staudt, M.D., Ph.D.
 cDNA Library Preparation: Ling Hong/Rubin Laboratory
 cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
 DNA Sequencing by: Incyte Genomics, Inc.
 Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at: <http://image.llnl.gov>
 Plate: LLCM894 row: p column: 19
 High quality sequence stop: 695.

FEATURES Location/Qualifiers

source 1. .912
 /organism="Homo sapiens"
 /mol_type="mRNA"
 /db_xref="taxon:9606"
 /clone="IMAGE:4054530"
 /tissue_type="primary B-cells from tonsils (cell line)"
 /lab_host="DH10B (phage-resistant)"
 /clone_lib="NIH_MGC_48"
 /note="Organ: B-cells; Vector: pOTB7; Site_1: XhoI; Site_2: EcoRI; cDNA made by oligo-dT priming. Directionally cloned into EcoRI/XhoI sites using the following 5' adaptor: GGCACGAG(G). Size-selected >500bp for average insert size 1.8kb. Library constructed by Ling Hong in the laboratory of Gerald M. Rubin (University of California, Berkeley) using ZAP-cDNA synthesis kit (Stratagene) and Superscript II RT (Life Technologies). Note: this is a NIH_MGC Library."

ORIGIN

Query Match 85.6%; Score 359.4; DB 2; Length 912;
 Best Local Similarity 92.4%; Pred. No. 3.1e-101;
 Matches 378; Conservative 0; Mismatches 31; Indels 0; Gaps 0;

Qy 12 CATGATGGTCCCAGCTCAGCTCCTCGGTCTCCTGCTGCTCTGGTTCACAGATG 71
 ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||

Db 4 CATGAGGGTCCCCGCTCAGCTCCTGGGGCTCCTGCTGCTCTGGTTCACAGATG 63

Qy 72 CGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGAGTCAC 131
 ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||

Db 64 CGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCCGTAGGAGACAGAGTCAC 123

Qy 132 CATCACTTGTCTGGGCGAGTCAGGATATTAGCAGCTGGTTAGCCTGGTATCAGCATAAACC 191
 ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||

Db 124 CATCACTTGTCTGGGCGAGTCAGGATATTAGTAGTTGGTTAGCCTGGTATCAGCAGAAACC 183

Qy 192 AGGTAAAGCACCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGTGGTGTCCCATC 251
 ||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||

Db 184 AGGGAAAGCCCTAAACTCCTGATCTATGCTGCATCCAGTTTACAAAGTGGGGTCCCATC 243

Qy 252 AAGGTTTCAGCGGAAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTGCAGCC 311
 ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||

Db 244 AAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTACAGCC 303

Qy 312 TGAAGATTTTGCAACTTACTATTGTCAACAGGCTAATAGTTTCCCGTACACTTTTGGTCA 371
 |||||

Db 304 TGAAGATTTTGCAACTTACCATTGTCTACAGACTAACAGTTTCCCATTCACCTTCGGCCC 363

Qy 372 GGGAACCAAGCTGGAGATCAAACGAACTGTGGCTGCACCATCTGTCTTC 420
 |||||

Db 364 TGGGACCAAAGTGGATATCAAGCGAACTGTGGCTGCACCATCTGTCTTC 412

RESULT 12
 CD694557

LOCUS CD694557 510 bp mRNA linear EST 25-JUN-2003

DEFINITION EST11080 human nasopharynx Homo sapiens cDNA, mRNA sequence.

ACCESSION CD694557

VERSION CD694557.1 GI:32219318

KEYWORDS EST.

SOURCE Homo sapiens (human)

ORGANISM Homo sapiens

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1 (bases 1 to 510)

AUTHORS Liu,X.-Q., Zhou,Y., Zhang,L.-J., Xu,H., Chen,H.-K., Pan,Z.-G. and
 Zeng,Y.-X.

TITLE Transcriptional Gene Expression Profile of Human Nasopharynx

JOURNAL Unpublished (2003)

COMMENT Contact: YiXin Zeng

Cancer Center

Sun Yat-sen University

651 DongFeng Road East, GuangZhou 510060, China

Tel: 86-1380-9770-743

Fax: 86-20-8775-4506

Email: yxzeng@gzsums.edu.cn.

FEATURES

source

Location/Qualifiers

1. .510

/organism="Homo sapiens"

/mol_type="mRNA"

/db_xref="taxon:9606"

/tissue_type="normal nasopharynx"

/clone_lib="human nasopharynx"

/note="ESTs generated from a normal nasopharynx cDNA

library from southern Chinese"

ORIGIN

Query Match 84.8%; Score 356.2; DB 6; Length 510;

Best Local Similarity 91.9%; Pred. No. 2.6e-100;

Matches 376; Conservative 0; Mismatches 33; Indels 0; Gaps 0;

Qy 12 CATGATGGTCCCAGCTCAGCTCCTCGGTCTCCTGCTGCTCTGGTTCCCAGGTTCCAGATG 71
 |||||

Db 66 CATGAGGGTCCCCGCTCAGCTCCTGGGGCTCCTGCTGCTCTGGTTCCCAGGTTCCAGATG 125

Qy 72 CGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGAGTCAC 131
 |||||

Db 126 CGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCTTCTGTGGGAGACAGCGTCAC 185

Qy 132 CATCACTTGTCTGGGCGAGTCAGGATATTAGCAGCTGGTTAGCCTGGTATCAGCATAAAACC 191
 |||
 Db 186 CATCACTTGTCTGGGCGAGTCAGGCTATTGGCAGCTGGTTAGCCTGGTATCAGCAGAAACC 245
 Qy 192 AGGTAAAGCACCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGTGGTGTCCCATC 251
 |||
 Db 246 AGGGAAAGCCCCTAAGTTCCTGATCTATGCTGCATCCATTTTGCAAAGTGGGGTCCCATC 305
 Qy 252 AAGGTTTCAGCGGAAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTGCAGCC 311
 |||
 Db 306 AAGGTTTCAGCGCAGTGGATCTGGGACAGCTTTCACTCTCACCATCAGCAGCCTGCAGCC 365
 Qy 312 TGAAGATTTTGCAACTTACTATTGTCAACAGGCTAATAGTTTCCCGTACACTTTTGGTCA 371
 |||
 Db 366 TGAAGATTTGGCAACTTACCATTGTCAACAGGCTAACAGTTTCCCTATCACCTTCGGCCA 425
 Qy 372 GGGAACCAAGCTGGAGATCAAACGAACTGTGGCTGCACCATCTGTCTTC 420
 |||
 Db 426 AGGGACACGACTGGAGATTAAACGAACTGTGGCTGCACCATCTGTCTTC 474

RESULT 13

CR597684

LOCUS CR597684 818 bp mRNA linear HTC 21-JUL-2004

DEFINITION full-length cDNA clone CS0DI026YL22 of Placenta Cot 25-normalized of Homo sapiens (human).

ACCESSION CR597684

VERSION CR597684.1 GI:50478491

KEYWORDS HTC; CNSLT_cDNA.

SOURCE Homo sapiens (human)

ORGANISM Homo sapiens

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1 (bases 1 to 818)

AUTHORS Li,W.B., Gruber,C., Jessee,J. and Polayes,D.

TITLE Full-length cDNA libraries and normalization

JOURNAL Unpublished

REMARK Contact : Feng Liang Email : fliang@lifetech.com URL : <http://fulllength.invitrogen.com/> InVitroGen Corporation 1600 Faraday Avenue

REFERENCE 2 (bases 1 to 818)

AUTHORS Genoscope.

TITLE Direct Submission

JOURNAL Submitted (20-JUL-2004) Genoscope - Centre National de Sequencage : BP 191 91006 EVRY cedex - FRANCE (E-mail : seqref@genoscope.cns.fr - Web : www.genoscope.cns.fr)

COMMENT 1st strand cDNA was primed with a NotI-oligo(dT) primer. Five prime end enriched, double-strand cDNA was digested with Not I and cloned into the Not I and EcoR V sites of the pCMVSPORT 6 vector. Library was normalized. Library was constructed by Life Technologies, a division of Invitrogen.

FEATURES Location/Qualifiers

source 1..818

/organism="Homo sapiens"

/mol_type="mRNA"

/db_xref="taxon:9606"

/clone="CS0DI026YL22"

/tissue_type="Placenta Cot 25-normalized"
/plasmid="pCMVSPORT_6"

ORIGIN

Query Match 84.2%; Score 353.8; DB 3; Length 818;
Best Local Similarity 93.6%; Pred. No. 1.7e-99;
Matches 381; Conservative 0; Mismatches 22; Indels 4; Gaps 1;

```
Qy      18 GGTCCCAGCTCAGCTCCTCGGTCTCCTGCTGCTCTGGTTCCCAGGTTCCAGATGCGACAT 77
      ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db       1 GGTCCCCGCTCAGCTCCTGGGGCTCCTGCTGCTCTGGTTCCCAGGTTCCAGATGCGACAT 60

Qy      78 CCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGAGTCACCATCAC 137
      ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db      61 CCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGAGTCACCATCAC 120

Qy     138 TTGTCGGGCGAGTCAGGATATTAGCAGCTGGTTAGCCTGGTATCAGCATAAACCAGGTAA 197
      ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db     121 TTGTCGGGCGAGTCAGGGTATTAGCAGCTGGTTAGCCTGGTATCAGCAGAAACCAGGGAA 180

Qy     198 AGCACCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGTGGTGTCCCATCAAGGTT 257
      ||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db     181 AGCCCCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGTGGGGTCCCATCAAGGTT 240

Qy     258 CAGCGGAAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTGCAGCCTGAAGA 317
      ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db     241 CAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTGCAGCCTGAAGA 300

Qy     318 TTTTGCAACTTACTATTGTCAACAGGCTAATAGTTTCCC---GTACACTTTTGGTCAGG 373
      ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db     301 TTTTGCAACTTACTATTGTCAACAGGCTAACACTCTCACTGTGGTGGACGTTTCGGCCAAG 360

Qy     374 GAACCAAGCTGGAGATCAAACGAACTGTGGCTGCACCATCTGTCTTC 420
      | ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db     361 GGACCAAGGTGGAATCAAACGAACTGTGGCTGCACCATCTGTCTTC 407
```

RESULT 14

CD696042

LOCUS CD696042 484 bp mRNA linear EST 25-JUN-2003

DEFINITION EST12565 human nasopharynx Homo sapiens cDNA, mRNA sequence.

ACCESSION CD696042

VERSION CD696042.1 GI:32222175

KEYWORDS EST.

SOURCE Homo sapiens (human)

ORGANISM Homo sapiens

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1 (bases 1 to 484)

AUTHORS Liu,X.-Q., Zhou,Y., Zhang,L.-J., Xu,H., Chen,H.-K., Pan,Z.-G. and
Zeng,Y.-X.

TITLE Transcriptional Gene Expression Profile of Human Nasopharynx

JOURNAL Unpublished (2003)

COMMENT Contact: YiXin Zeng

Cancer Center

Sun Yat-sen University

651 DongFeng Road East, GuangZhou 510060, China

Tel: 86-1380-9770-743
Fax: 86-20-8775-4506
Email: yxzeng@gzsums.edu.cn.

FEATURES
source Location/Qualifiers
1: .484
/organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/tissue_type="normal nasopharynx"
/clone_lib="human nasopharynx"
/note="ESTs generated from a normal nasopharynx cDNA
library from southern Chinese"

ORIGIN

Query Match 84.0%; Score 353; DB 6; Length 484;
Best Local Similarity 91.4%; Pred. No. 2.6e-99;
Matches 374; Conservative 0; Mismatches 35; Indels 0; Gaps 0;

```
Qy      12 CATGATGGTCCCAGCTCAGCTCCTCGGTCTCCTGCTGCTCTGGTTCACAGGTTCCAGATG 71
      ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db      58 CATGAGGGTCCCCGCTCAGCTCCTGGGGCTCCTGCTGCTCTGGTTCACAGGTTCCAGATG 117

Qy      72 CGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGAGTCAC 131
      ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db     118 CGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACACAGTCAG 177

Qy     132 CATCACTTGTCTGGGCGAGTCAGGATATTAGCAGCTGGTTAGCCTGGTATCAGCATAAACC 191
      ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db     178 CATCACTTGTCTGGGCGAGTCAGGCTATTGGCAACTGGTTAGCCTGGTATCAACAGAGACC 237

Qy     192 AGGTAAAGCACCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGTGGTGTCCCATC 251
      ||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db     238 AGGGAAAGCCCCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGTGGCGTCCCTTC 297

Qy     252 AAGGTTTCAGCGGAAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTGCAGCC 311
      ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db     298 CAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTGCAGCC 357

Qy     312 TGAAGATTTTGCAACTTACTATTGTCAACAGGCTAATAGTTTCCCGTACACTTTTGGTCA 371
      || ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db     358 GGAGGATTTTGGAATTTACTATTGTCAACAGGCTAACAGTGTCCCTTTCACTTTTCGGCCC 417

Qy     372 GGGAAACCAAGCTGGAGATCAAACGAAGTGTGGCTGCACCATCTGTCTTC 420
      || ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db     418 TGGGACCACAGTGGATATCAAACGAAGTGTGGCTGCACCATCTGTCTTC 466
```

RESULT 15

BQ706785

LOCUS BQ706785 903 bp mRNA linear EST 16-JUL-2002

DEFINITION AGENCOURT_7977104 NIH_MGC_113 Homo sapiens cDNA clone IMAGE:6216052
5', mRNA sequence.

ACCESSION BQ706785

VERSION BQ706785.1 GI:21845684

KEYWORDS EST.

SOURCE Homo sapiens (human)

ORGANISM Homo sapiens

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1 (bases 1 to 903)

AUTHORS NIH-MGC <http://mgc.nci.nih.gov/>.

TITLE National Institutes of Health, Mammalian Gene Collection (MGC)

JOURNAL Unpublished (1999)

COMMENT Contact: Robert Strausberg, Ph.D.
Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Dr. Mark Watson
cDNA Library Preparation: Rubin Laboratory
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can be
found through the I.M.A.G.E. Consortium/LLNL at:
<http://image.llnl.gov>
Plate: LLCM2385 row: p column: 05
High quality sequence stop: 697.

FEATURES Location/Qualifiers

source 1..903
/organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/clone="IMAGE:6216052"
/lab_host="DH10B (phage-resistant)"
/clone_lib="NIH_MGC_113"
/note="Organ: spleen; Vector: pOTB7; Site_1: XhoI; Site_2:
EcoRI; cDNA made by oligo-dT priming. Directionally cloned
into EcoRI/XhoI sites using the following 5' adaptor:
GGCACGAG(G). Library constructed by Ling Hong in the
laboratory of Gerald M. Rubin (University of California,
Berkeley) using ZAP-cDNA synthesis kit (Stratagene) and
Superscript II RT (Life Technologies). Note: this is a
NIH_MGC Library."

ORIGIN

Query Match 84.0%; Score 352.8; DB 5; Length 903;
Best Local Similarity 92.7%; Pred. No. 3.7e-99;
Matches 382; Conservative 0; Mismatches 27; Indels 3; Gaps 1;

```

Qy      12 CATGATGGTCCCAGCTCAGCTCCTCGGTCTCCTGCTGCTCTGGTTCCCAGGTTCCAGATG 71
        ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db      4  CATGAGGGTCCCCGCTCAGCTCCTGGGGCTCCTGCTGCTCTGGTTCCCAGGTTCCAGATG 63

Qy      72 CGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGAGTCAC 131
        ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db      64 CGACATCCAGATGACCCAGTCTCCATCTTCTGTGTCTGCATCTGTAGGAGACAGAGTCAC 123

Qy      132 CATCACTTGTCGGGCGAGTCAGGATATT---AGCAGCTGGTTAGCCTGGTATCAGCATAA 188
        ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db      124 CATCACTTGTCGGGCGAGTCAGGGTATTAGCAGCAGCTGGTTAGCCTGGTATCAGCAGAA 183

Qy      189 ACCAGGTAAAGCACCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGTGGTGTCCC 248
        ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db      184 ACCAGGGAAAGCCCCTAAACTCCTGATCTATGCTGCATCCAGTTTGCAAAGTGGGGTCCC 243

Qy      249 ATCAAGGTTTCAGCGGAAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTGCA 308
        ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||

```



```

Db      244 ATCAAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACTATCAGCAGCCTGCA 303
Qy      309 GCCTGAAGATTTTGCAACTTACTATTGTCAACAGGCTAATAGTTTCCCGTACACTTTTGG 368
        ||||||||||||||||||||||||||||||||||||| || ||||||||| | ||||| ||
Db      304 GCCTGAAGATTTTGCAACTTACTTTTGTCAACAGGTTACAGTTTCCCTCAGACTTTTCGG 363
Qy      369 TCAGGGAACCAAGCTGGAGATCAAACGAACTGTGGCTGCACCATCTGTCTTC 420
        || ||||||| |||||||||||||||||||||||||||||||||||||
Db      364 CGGAGGGACCAAGGTGGAGATCAAACGAACTGTGGCTGCACCATCTGTCTTC 415

```

Search completed: December 2, 2004, 20:56:38
Job time : 2187.2 secs